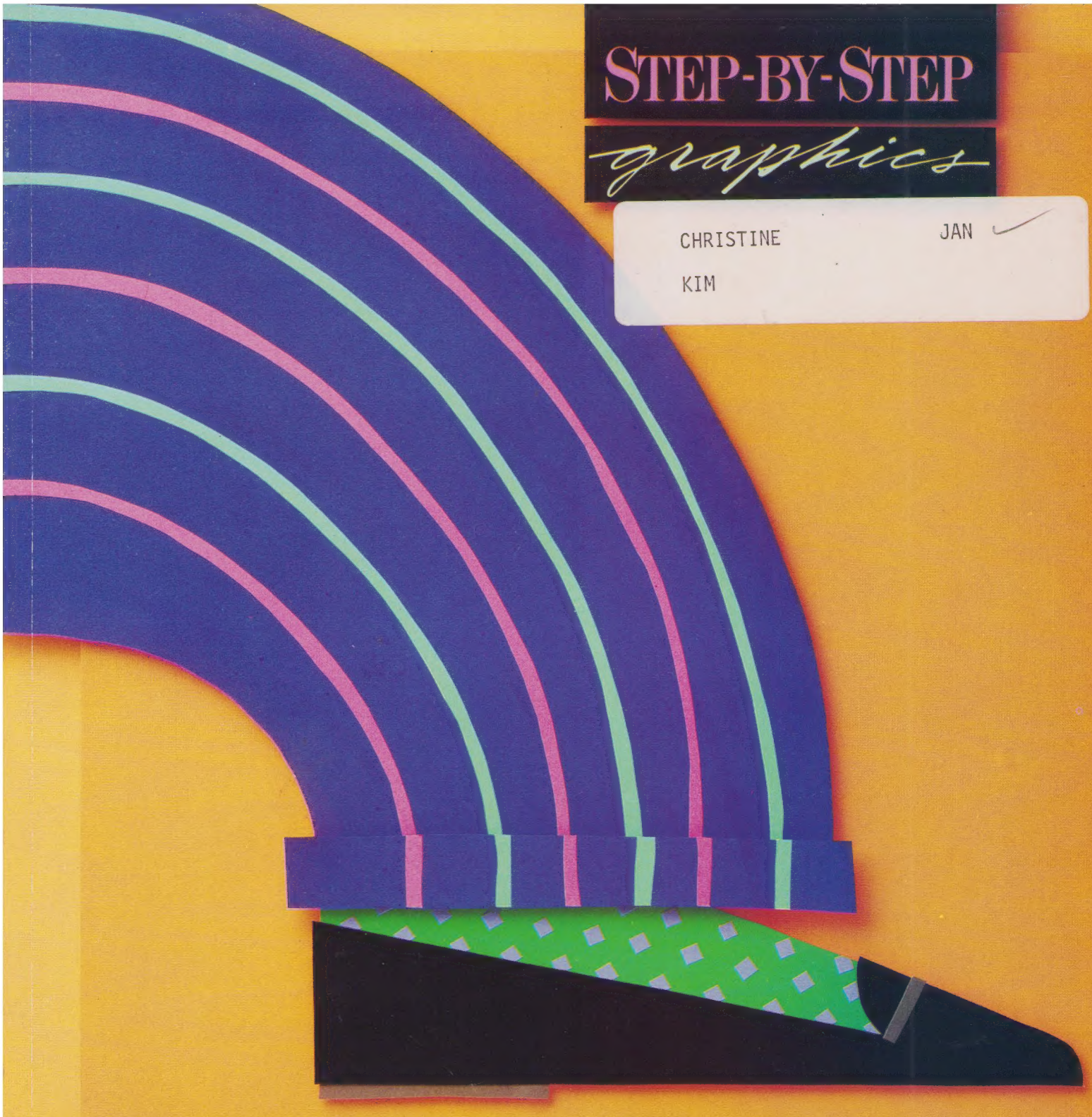
STEP-BY-STEP graphics

CHRISTINE JAN

KIM



The How-To Reference Magazine For Visual Communicators Volume 5, Number 5 $7.50

DISCOVER

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DISCOVER

WRITING, TEXT AND COVER PAPERS

N E E N A H

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WRITING • TEXT • COVER

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STEP-BY-STEP graphics®

July/August 1989

32 Cover Feature
Dallas designer Jack Summerford helps AT&T executives become more creative through an award-winning inspirational packet of fairy tales and poems, called, "Teaching Tales and Verses."

Step-By-Step Graphics (ISSN 0886-7682/USPS 755-270) is published seven times a year (January, February, March/April, May/June, July/August, September/October, November/December) by Dynamic Graphics, Inc., 6000 N. Forest Park Drive, Peoria, IL 61614-3592, for $42.00 per year in the U.S. and $51.00 per year outside the U.S.; single copies are $7.50 each. Group subscription rates upon request. July/August 1989, Vol. 5, No. 5. POSTMASTER: Send change of address forms to *Step-By-Step Graphics*, 6000 N. Forest Park Drive, Peoria, IL 61614-3592. Second-class postage rates paid at Peoria, Ill, and at additional mailing offices.

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BPA

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STEP-BY-STEP graphics

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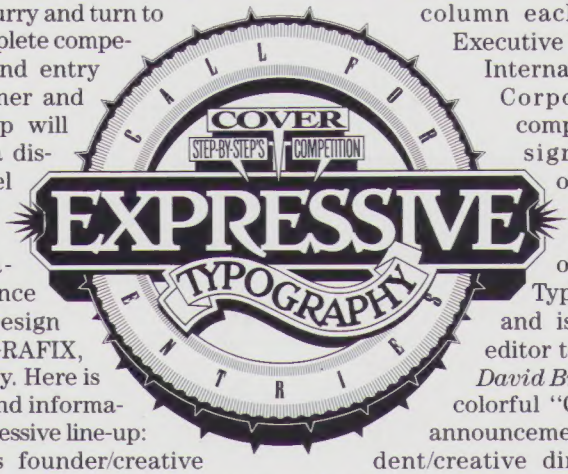
EDITOR'S NOTE

We're inviting you to express yourself typographically! With few restrictions, our first-ever cover competition challenges you to do some creative problem-solving: To create a cover for our 1990 Annual "Designer's Guide to Typography" that in some way addresses the theme "Expressive Typography." Although the Annual isn't published until February, your entry is due August 31. So hurry and turn to page 20 for complete competition details and entry form. The winner and final runners-up will be chosen by a distinguished panel of judges on Sunday, Sept. 10, at The National Conference for Graphic Design Professionals, GRAFIX, in New York City. Here is some background information on our impressive line-up:



Paula Scher is founder/creative director of Koppel and Scher, a Manhattan-based graphic design firm. With a BFA from the Tyler School of Art, she is widely recognized for her work at CBS Records as well as for her historically-based typographic vision. Scher speaks frequently, and passionately, about type and design—in fact, she is a featured speaker at the upcoming AIGA National Conference in San Antonio, Oct. 5-8—and has been honored by the Art Directors Club of New York, the Society of Illustrators, has received four Grammy nominations, and was named one of Ten Significant Women Designers in America by Chicago's Women in Design.

Rick Valicenti is principal of THIRST, a Chicago/Milano-based design/photography cooperative involved in cultural, retail, contract and residential design. Perhaps best known for his "text-as imagery" approach to typographic design, he holds an MFA from the University of Iowa, is a member of the 27 Chicago Designers, and has served as president of the Society of Typographic Arts (STA) and as an AIGA/Chicago board member. Valicenti lectures regularly on the subject of type, and has judged a variety of exhibitions, including his current stint as chairperson of the 1989 STA 100 show.

Mathew Carter is a founder, director and vice president of design at Bitstream Inc., makers of digital type and related software. An internationally recognized type designer—perhaps best known for his design of the widely used ITC Galliard—Carter teaches at Yale's Graphic Design School and has received the Frederic W. Goudy Award for outstanding contribution to the printing industry.

Allan Haley writes our "ABCS of Type" column each issue, and is Executive Vice President of International Typeface Corporation. An accomplished type designer and author of "Phototypography," Haley sits on the board of the New York Type Directors Club and is a contributing editor to *U&lc*.

David Brier designed our colorful "Call For Entries" announcement and is president/creative director of David Brier Design Works, Inc. He is perhaps best known for his expressive typographic solutions to corporate image, promotion, packaging, and publication projects for clients like *Rolling Stone*, HBO, Revlon and Time, Inc. He has judged many type shows and guest lectures frequently.

Won K. Chung is a corporate designer and veteran type educator. He directs all graphic design, advertising and editorial services as vice president of marketing services at J.P. Morgan & Co, holds an M.F.A. from Yale, and has taught typography for more than ten years at schools such as the Rhode Island School of Design, Cooper Union, and The Art Institute of Boston.

VISIT THE STEP-BY-STEP BOOTH All of the designers mentioned above are being assembled for a *Step-By-Step Graphics* panel discussion on typography at GRAFIX. If you are able to attend, please stop by our booth. If not, try to look us up at the AIGA Conference in Texas. We like to take advantage of every opportunity we can to meet and talk to our readers in person.

Nancy Aldrich-Ruenzel

Nancy Aldrich-Ruenzel
Editorial Director

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This advertisement was lithographed on STERLING Litho Gloss, 80lb., 25x38—500 basis. Westvaco Corporation, Fine Papers Division, 299 Park Avenue, New York, NY 10171. 212-688-5000.

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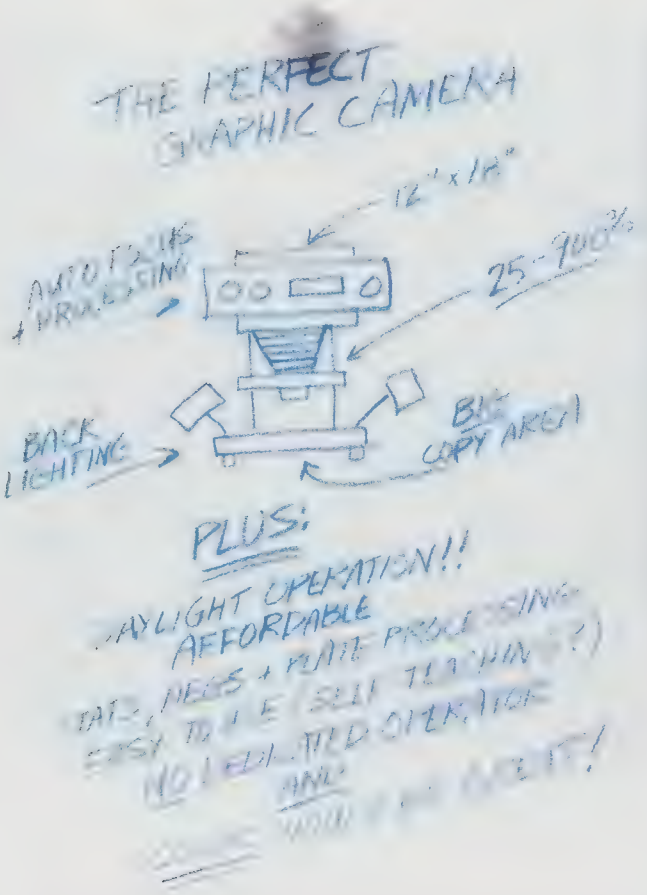

The new Itek Graphix Imagemaker 540

A whole lot more for a whole lot less.

If you set out to design the perfect graphic camera, you couldn't do better than this. Feature for feature, the new Itek Graphix Imagemaker 540 is a dream come true . . . **and** it's the lowest priced graphic camera we've ever made.

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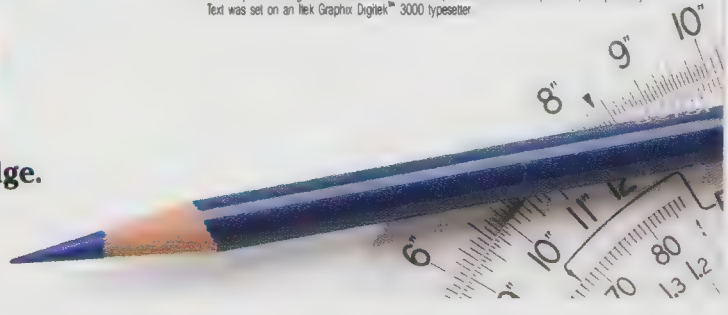

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NEW!

From Dr. Ph. Martin's

"NO MIST" AIRBRUSH CLEANING CHAMBER

This "No Mist" patented cleaning chamber comes to the rescue of airbrush artists during airbrush cleanings **or** between color changes.

- It provides a convenient, clean and safe place to spray excess mist from color changes for the airbursh cleaner being used.
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SPECTRALITE COMPLETE SET

We keep getting bigger **and** better. Our Spectralite Complete Set is now available in a handy 48-color carrying case.

- Comes with handle and holds bottles neatly and firmly upright
- Provides space for additional bottles such as Airbrush Cleaner, Color Extender and Spectra-Tex
- Is compact, requiring minimal room.
- 16-color metallic set with carrying case also available.

SPECTRALITE METALLICS

Now there are 16 new magnificent colors for airbrush artists, all of which are:

- Permanent, lightfast, water resistant color
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These metallics will adhere permanently and are washable on any fabric when used with Spectra-Tex. They are specially designed to operate at very low air pressure (3 to 7 lbs. psi) for greatest control over your work. In addition, they dry with a beautiful shine, will not clog your airbrush, are AP approved non-toxic, and conform to the ASTM standard D-4236.

1 oz. or 2 oz. bottle

SPECTRA-TEX

Spectra-Tex is a newly-developed, time-saving additive that will make any of the 62 Spectralite colors—including the metallics—permanent and colorfast (washable) on any fabric.

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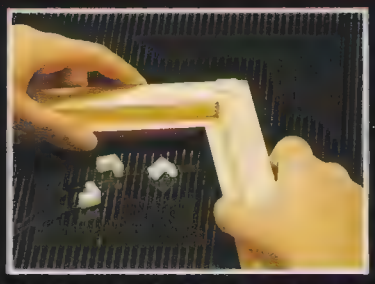

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PAIR	MICA 1	MICA 2	PAIR	MICA 1	MICA 2
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6"	3.30	4.30	24"	8.70	9.70
7"	3.60	4.60	25"	9.00	10.00
8"	3.90	4.90	26"	9.30	10.30
9"	4.20	5.20	27"	9.60	10.60
10"	4.50	5.50	28"	9.90	10.90
11"	4.80	5.80	29"	10.20	11.20
12"	5.10	6.10	30"	10.50	11.50
13"	5.40	6.40	31"	10.80	11.80
14"	5.70	6.70	32"	11.10	12.10
15"	6.00	7.00	33"	11.40	12.40
16"	6.30	7.30	34"	11.70	12.70
17"	6.60	7.60	35"	12.00	13.00
18"	6.90	7.90	36"	12.30	13.30
19"	7.20	8.20	37"	12.60	13.60
20"	7.50	8.50	38"	12.90	13.90
21"	7.80	8.80	39"	13.20	14.20
22"	8.10	9.10	40"	13.50	14.50

Prices Effective March 1, 1989

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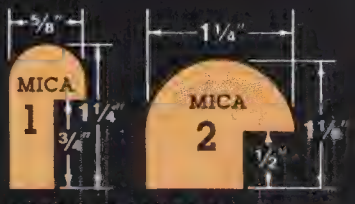

MICA 1 and MICA 2 are available in all colors.

Note Actual Colors may vary slightly from illustrations shown.

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LETTERS

Holland's Verbal/Visual Honesty

Thank you for running the fabulous interview with Brad Holland. A great illustrator who is verbally articulate, too—how wonderful. I appreciate you letting someone who is socially aware have his say and pinpoint some of the ironies of our society, which is reflected in the taste of publication editors.

Cynthia Gallaher
Melrose Park, Ill.

Your article in "Viewpoint," "Trends in American Illustration: Brad Holland Speaks Out" (Vol. 5, No. 3) was one of the most refreshing, contemporary and honest interviews I have read lately. He really nailed the trends in publishing today, stating that the influence of power and money greatly affects the direction of the publishing business and what it buys in the way of artwork, decorative or otherwise. His comments also could be applied in a similar way to the advertising field. What was of special interest was the comparison between the European and American markets.

Mr. Holland, being a contemporary genius of pictorial satire, can also sting verbally. All of his comments kept the interview very lively and "it all needed to be said." Bravo!

Bill Vann
Bill Vann Studio
St. Louis, Mo.

In Praise of Great Men

I couldn't have been more pleased with author Albert Gold's article on Robert Riggs (Vol. 4, No. 7). As powerful an artist as Riggs was, with his dominance and mastery of chiaroscuro, Gold's critical examination and lumination of his style, both in art and life, was a literary work of art in itself. It was absolutely right on target for showing the inner feelings that drove Riggs to perfection in whatever his subject matter.

A. Michael Leahy
Hampstead, N.C.

I enjoyed Albert Gold's article on our mutual friend, Robert Riggs. It was filled with interesting detail and account that, for me, was nostalgic. It was an honor to know Riggs, and I am indebted to Gold for introducing me to him.

John Freas
Havertown, Pa.

I enjoyed your "Methods of the Masters" on Frederic Remington (Vol. 5, No. 1) as he is one of my personal favorites. I also enthusiastically applaud your new feature "Freelancing." Having at one time been a freelance, I find it informative and enlightening.

Darrel Willman
Van Dyke's
Woonsocket, S.D. ■

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Circle 5 on Information Card

CORRECTIONS *The caption on the left-hand side of page 138 in "The Designer's Guide to Outfitting the Studio" was incorrect. The Hasselblad camera shown is a 2¼ x 2¼ model, not a 4 x 5, as was stated.*

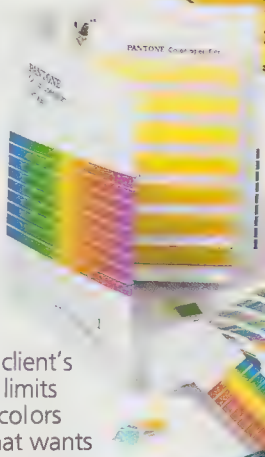
Also, in the same issue, the cameras shown at the lower left on page 154 and at lower right on page 155 were misidentified as daylight cameras. They are darkroom models.

Address your letters to: Editor, Step-By-Step Graphics, *6000 N. Forest Park Drive, Peoria, IL 61614-3592. Letters may be edited for purposes of space or clarity.*

What's your problem?

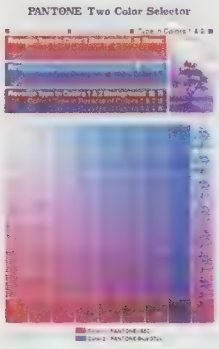
Color-wise

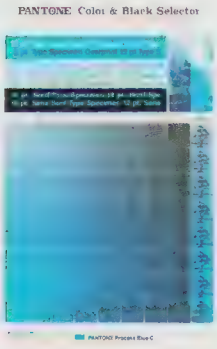
Matchmaking. What happens if the colors on that label you've designed don't print to match the colors you intended? You'd have yourself a problem. But you dodge that bullet by turning to your trusty PANTONE® Color Specifier 747XR. You put those PANTONE Color chips with their PANTONE Color numbers right on your art. And your printer simply looks up the formula. Presto, perfecto!



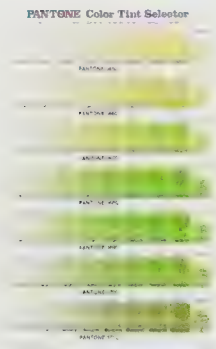
Matte coated versions of both our specifier and our formula guide are now available.

Dynamic Duos. What to do when the client's budget problem limits you to just two colors for a brochure that wants to reach for the stars? Reach for the PANTONE Two Color Selector 747XR. It shows you 85 different effects for each of 111 two-color combinations on coated and uncoated stock. In all, thousands of chances to turn problems into spectacular solutions.





Black & Blue. Suffering from the headache of how to succeed with color-and-black? Don't be blue. The PANTONE Color & Black Selector 747XR shows you tints (in 10% steps) of black with over 100 PANTONE Colors, plus halftone and duotone examples. Now you're thinking color-and-black beauties.



Guessing Games. This chart could have been a problem chart without the PANTONE Color Tint Selector 747XR. But its designer knew up front how the selected PANTONE Colors would work in different tints. And what to do so type would spring to life instead of fade away. It takes the guesswork out of tint work.

solutions:

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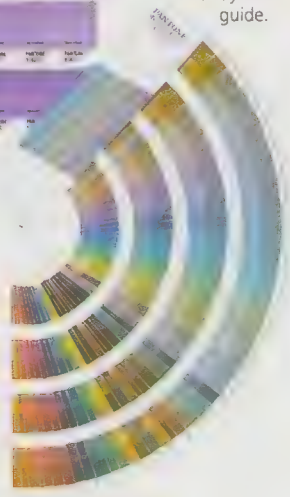

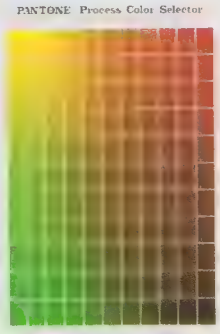

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CAREER TIPS

Helpful hints covering a variety of practical professional development issues.

GALLERY FOR ILLUSTRATORS

Some top U.S. illustrators are finding new outlets for previously published artwork in a New York gallery devoted exclusively to original contemporary illustration, according to Pam Sommers, owner of The Illustration Gallery, 330 E. 11th Street, New York, N.Y. 10003, (212) 979-1014. The retail gallery opened its doors in late 1988 and currently represents 15 illustrators, including Guy Billout, Dave Calver, Vivienne Flesher, Anthony Russo, Elwood Smith, Jose Ortega, Andrzej Dudzinski and others.

In addition to the core group of artists, Sommers also shows the work of other illustrators who interest her. Exhibitions to date have included a group show of regular gallery artists, a valentine show of romantic images, a solo show of the work of Steven Guarnaccia, one devoted exclusively to collage and another to travel drawings.

Sommers, who has a background in graphic arts, believes there is a market for current illustration, but it needs to be tapped. "The work is excellent and really undervalued," she explains.

While she encourages other artists to send printed samples of work or slides (which will be returned only if accompanied by a self-addressed, stamped envelope), she views portfolios only upon request.

Illustration Gallery This New York gallery, devoted exclusively to illustration, opened its doors in late 1988 and currently represents 15 illustrators.

MANAGING CASH FLOW

Although your business is doing well on the basis of sales, growth or profits, you may not be doing well after all, says Michael W. Kanzler, a partner of Wolf & Company, Certified Public Accountants, based in Oak Brook, Illinois. "You can't pay bills or employees with profits or sales, only cash. In the end, if you don't have money to pay your obligations, you will go out of business."

A consultant to many small businesses, including graphic designers, Kanzler recommends the cash method of accounting for service companies which generally receive revenue after the service is provided and have average annual gross receipts below $5 million. "This allows you to manipulate income by managing receipt of cash income and payment of bills," he explains. "For example, at the end of the calendar year, your company might want to pay some large bills in December or arrange to receive payment in January to defer income into the following year."

Kanzler provides a crash course in cash management, which he divides into four categories:

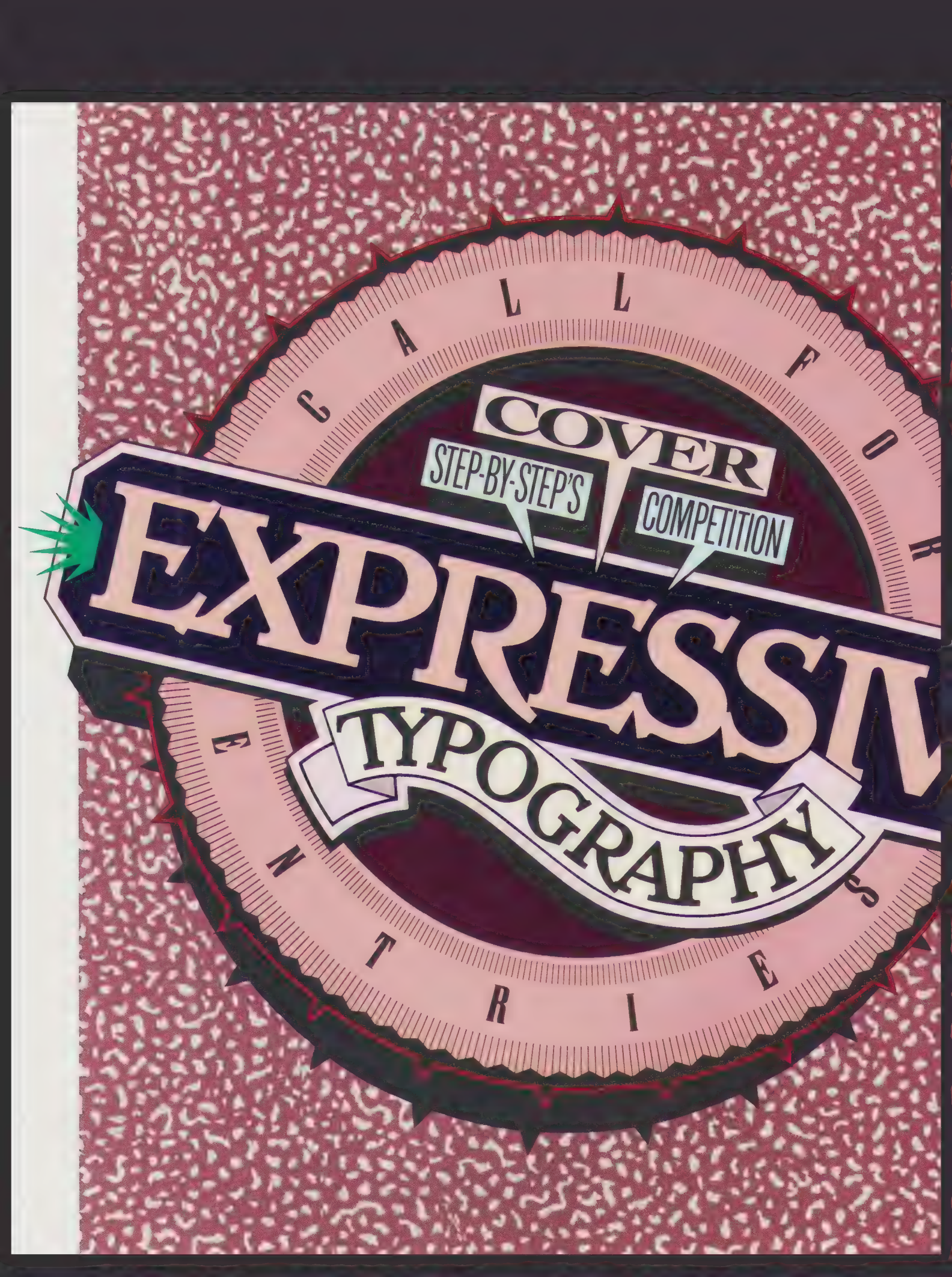
1. Cash flow planning To forecast your needs, you should project a cash analysis as shown in the accompanying table. This example shows a $100,000 contract over a one-year period. "The amount that must be borrowed can be estimated in advance of the time cash is required," explains Kanzler. "Similarly, the amount of idle cash and length of time it is likely to remain idle can also be estimated."

2. Management of cash flow Of the two basic rules of cash flow management, the first is to collect accounts receivables as quickly as possible. "You should investigate potential customers, so you won't have to call a past due account later," counsels Kanzler. "By following an aggressive collection policy, you can establish your company as a vendor that gets paid promptly."

However, if payment is delayed more than 60 days, you can suspend work or delivery, use a COD system, obtain a personal guarantee from company officers, or charge interest on past due amounts. Over 90 days and you should consider using a third-party collection agency. "One way of assessing your collection efforts," advises Kanzler, "is to compare any given month's receivables with prior month-to-month figures."

The second rule of cash flow management is to pay accounts due at a pace that retains cash as long as possible without hurting your credit rating. "Some firms pay vendors too quickly," notes Kanzler. "You may have opportunities to stretch payables an additional 15 to 30 days without incurring credit problems. On the other hand, some companies offer trade discounts for early payment. You should calculate the savings with early payment

(Continued on page 22)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THE DESIGN PROBLEM To design an original cover for our 1990 Annual Designer's Guide to Typography issue—a cover that is typographically-based and that addresses the theme "Expressive Typography." Entries can be all-type but do not have to be limited to type-only designs. Use *any method* or *combination of methods* to solve the problem.

SIZE, COLOR, FORMAT CONSIDERATIONS Proportion your color or black-and-white design to conform to a standard 8½ x 11 vertical cover format. Take our standard logo and cover type into consideration when designing, but *do not include them in your artwork.* Full bleed cover size is 8⅝ x 11⅛. (Covers are printed web offset on a four-color press.) Submit 35mm slides only; no original artwork accepted. Label slide mounts with your name and phone number. First place winner and runners-up will be asked to supply original artwork for reproduction.

THE DEADLINE All entries must include a completed copy of the entry form, and they must be received no later than August 31, 1989. No extensions will be given. Slides will not be returned, but receipt of entries will be acknowledged. (*Step-By-Step Graphics* is not responsible for damage to entries or late delivery.)

THE JUDGES Entries will be judged on the basis of creativity, theme and format appropriateness and technical excellence. After a preliminary prejudging, final winners will be chosen by a panel of award-winning designers—Paula Scher, Rick Valicenti, Mathew Carter, Won K. Chung, Allan Haley and David Brier, creator of our "Call For Entries"—who are being assembled at GRAFIX, The National Conference for Graphic Design Professionals (Sept. 8-10, J. Javits Center, N.Y.C.) for a *Step-By-Step Graphics* roundtable discussion on typography. (Visit the magazine's booth, #213 at GRAFIX.) Winners will be notified immediately.

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Each 35mm slide submission must be accompanied by this completed form, and sent to: *Step-By-Step Graphics* Cover Competition, 111 Oakwood Road, East Peoria, IL 61611. (No phone calls, please. All submissions must be received no later than Aug. 31, 1989.)

Design & Lettering: David Brier
Headline Typography: Phil's Photo

TIME SPAN:	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
Cash collections	$ 0	25,000	45,000	20,000	0	10,000	100,000
Cash payments							
Materials & supplies			20,000	10,000	10,000		40,000
Outside services	2,500	2,500		1,000			6,000
Salaries	5,000	10,000	5,000	5,000			25,000
	7,500	12,500	25,000	16,000	10,000		71,000
Selling & administrative expenses	5,000	3,000					
Capital expenditures	0	0	0	0	0	0	0
Total expenditures	$12,500	15,500	25,000	16,000	10,000	10,000	79,000
Cash inflow <outflow>	$(12,500)	9,500	20,000	4,000	(10,000)	10,000	21,000

Cash Analysis To forecast needs, a firm with annual gross receipts below $5 million should project a cash analysis similar to this one. This example shows a $100,000 contract over a one-year period. This method can help business owners determine when and how much money should be borrowed or help them estimate the amount of idle cash available.

(Continued from page 19)

to see if the discount makes sense."

3. Bank services There are a number of bank services, such as sweep accounts, lock box processing, wire transfer, and zero balance account disbursing, that may aid in the management of your cash flow, but none of them is free. You can determine if these are cost effective for your firm by analyzing "float," which refers to the status of funds at five stages in the collection process.

Invoicing float simply means that funds are tied up in billing and receivables; mail float refers to funds tied up from the time your customer mails the payment until the check is received; processing float describes funds tied up in sorting and recording before the checks are deposited; availability float is funds tied up from the time the check is deposited until available funds are credited to your account; and disbursing float indicates funds available in your bank account until your payment check clears.

"If cash is not available to fund current operations, you will need some type of interim financing until receivables are collected," say Kanzler. "You should set up a line of credit based on the balance of outstanding receivables." A typical receivable loan provides financing up to 85 percent of accounts receivable under 60 days outstanding.

4. Investment of surplus cash Should you be in the enviable position of having excess cash, there are a number of ways you can invest it to maximize your return and minimize the risk of loss due to price fluctuations. Money market certificates or funds, commercial paper, certificates of deposit, T-bills and bonds are all sound investment possibilities.

JOBS, JOBS, JOBS

If you are looking for expert graphic designers, either to fill a permanent staff position or to work on a free-lance assignment, some schools provide a year-round job referral service that benefits employers. For example, at Pratt Institute in New York City, all Pratt undergraduates and alumni who are looking for work are eligible. It is the kind of system many designers wish their own alma maters had in place.

Organized over seven years ago, Pratt's phone referral system places some responsibility on the individual looking for work, observes Kathleen Creighton, the placement counselor in charge of two-dimensional design. But it delivers.

Here's how the system works: The designer looking for work calls the special job phone on Thursday and leaves a message about the kind of work desired—full- or part-time, in advertising or for a corporation, and when and where they can be called back, for example. Then Creighton matches that request with job offers and calls the person back on Friday or Tuesday. "Of course," Creighton states, "if the job request is a rush or if it's a very specific type of work—like pastel illustration, for instance—then I'll call designers I know are qualified. Often, I can turn a job around in 24 to 48 hours," she notes proudly.

Creighton estimates she interviews between 400 and 500 communication design students and graduates each year, with "a high percentage" of the 1988 graduating class currently in either full-time staff or free-lance employment. What contributes to Pratt's success is its very aggressive career counseling program. "I survey each graphic design student's portfolio beginning in the sophomore year and give them advice," says Creighton. "In addition, I help them get part-time jobs so they'll have first-hand knowledge of the field. Then they're really prepared with marketable skills and experience when they graduate. That also makes my job very easy, because after working with them over the years, I know the kinds of jobs in which to place them."

In addition, Pratt invites 6,000 to 8,000 art directors in the New York City area to a one-day event scheduled in May of each year where they can review the portfolios of graduating seniors. "That really helps generate interviews," Creighton relates. Three times annually, Creighton also surveys those using the phone referral system to discover their current job status; all alumni are surveyed every five years.

To find out more about Pratt's placement program or to place a job offer, you can reach Creighton at (718) 636-3506.■

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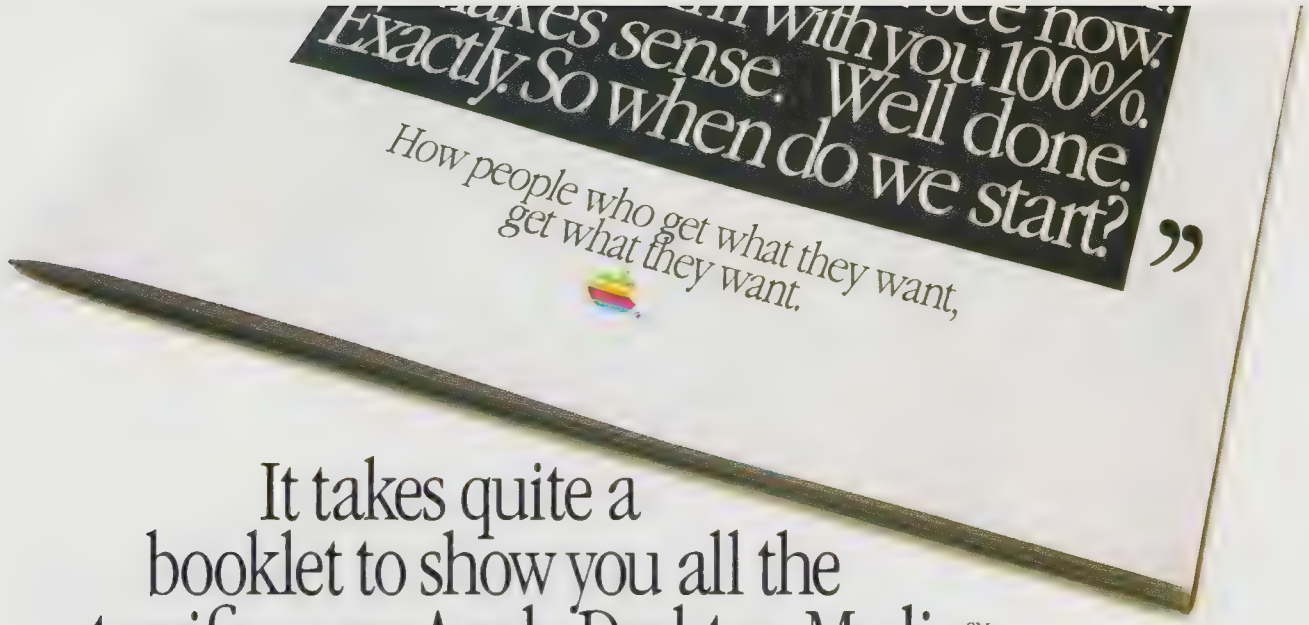

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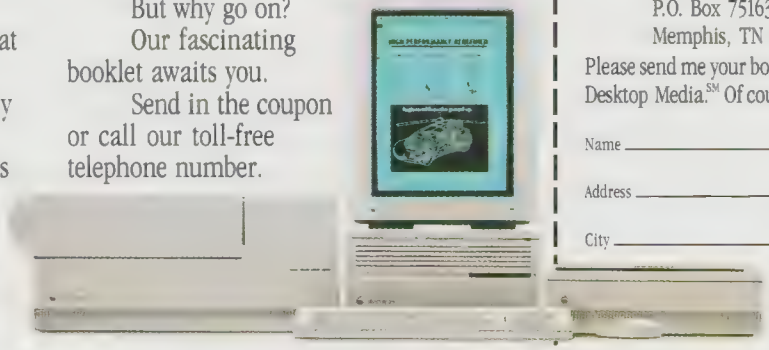

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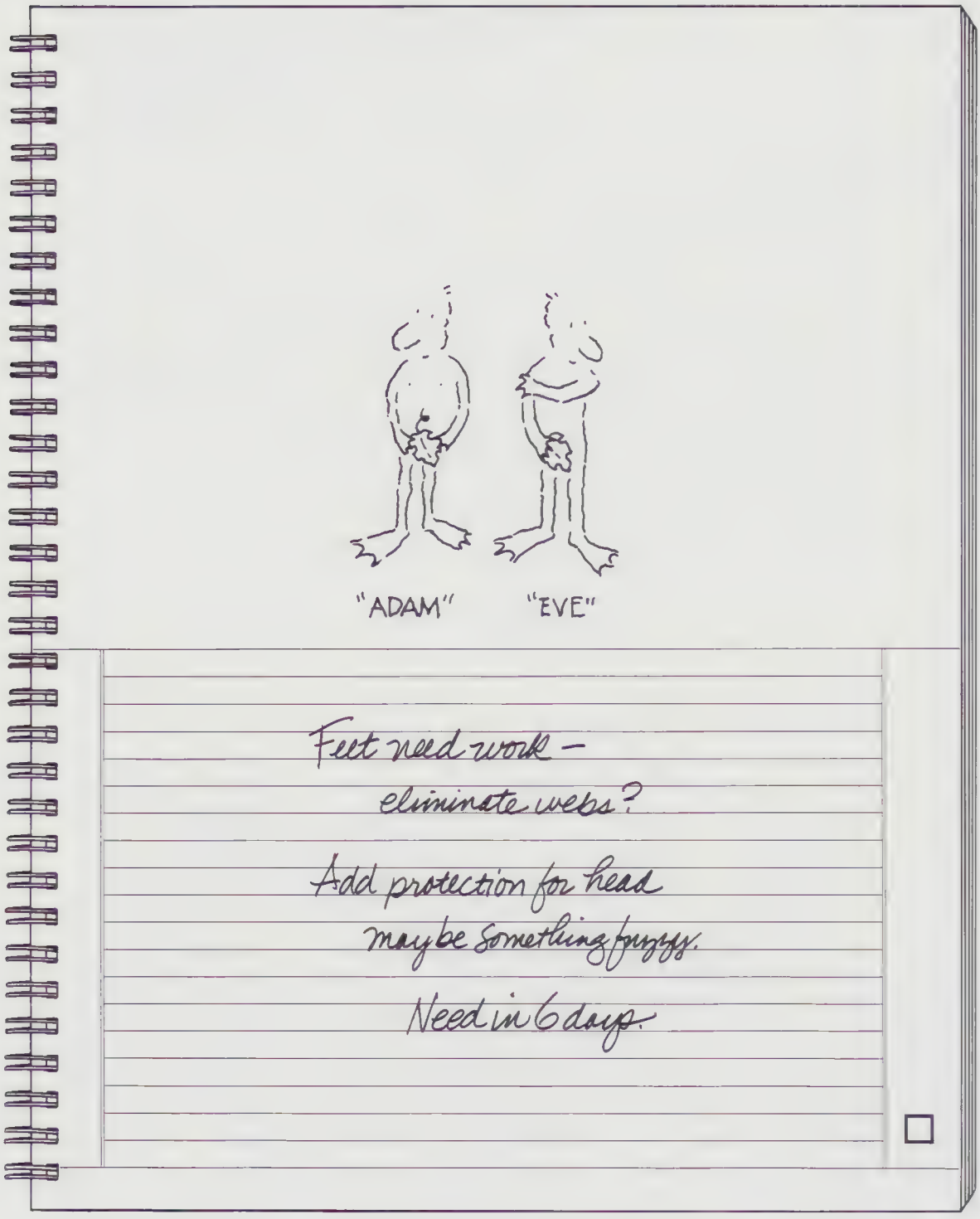

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THE CHECK'S IN THE MAIL

Problem I am a fourth year design student and recently I completed my first free-lance job—a job for which I have not yet been paid. I have sent three bills to the client already, and having made several phone calls to them, all I hear is "the check is in the mail." I was smart enough to have a contract signed before the job commenced. Now what avenues can I pursue to get paid?

Solution Chances are you are being taken advantage of because of your student status. The "Graphic Artists Guild Handbook" (6th edition) offers a variety of options you might consider (applicable to both the student and the professional). According to the Handbook, you have already pursued the first step to collecting your fee—direct negotiation. Be sure your letters and invoices are sent by certified mail, and keep copies of all correspondence. This will help if other collection tactics are necessary. If you are confident that neither miscommunication or red tape are hindering payment, the Handbook recommends the following actions.

Send a Demand Letter This is a last effort before turning to other alternatives. Done directly or through a lawyer, the letter should include the claim, briefly stated with a demand for immediate payment of balance due. It should also state that legal action will be taken unless payment is received. (If you are a member of the Graphic Artist Guild, your local chapter can sometimes provide assistance.)

Arbitration or Mediation These services involve an impartial, outside entity to reach a solution. The difference between the two is that an arbitrator acts as a judge reviewing both sides and then makes a legally binding decision, while a mediator acts more as an umpire, leading both parties to a solution. Both of these are far speedier and less expensive than suing in formal court, but both parties must agree to use these services.

Small Claims Court For a minimal fee, small claims court makes the legal system far more accessible than formal court. It is faster, less expensive and more streamlined. Artists can handle their own case with a little help from flyers prepared by the court, how-to publications, local rule books and the court clerk. Each court has a dollar limit for small claims, but if monies owed are slightly in excess, a reduced amount can be sued for with the understanding that the balance above the limit is permanently forfeited. It may also be possible to split up larger amounts and sue for them individually under separate claims.

Collection Services Such services authorized by law may be used if you are still empty-handed despite a favorable arbitration or court decision. The artist can then place a lien on the buyer's funds and assets which can be seized. Failure to pay also makes the buyer liable for further legal action. Commercial collection agencies can be utilized before a decision of judgment is obtained. In addition to regular expenses, the agency will take 20 to 50 percent of monies recovered. Before signing a written agreement (and make sure you have one), review it carefully for costs and actions the agency will take, and be sure the practices used will in no way reflect unprofessionally on you.

Consulting/Hiring a Lawyer A general practitioner or collection lawyer could be hired for simple payment due problems, but if the dispute involves the artist's legal rights in and economic control over artwork, a lawyer specializing in art matters is preferable. A lawyer is helpful when a dispute must be resolved before payment can be made. In any event, the artist should arrange for an initial consultation. Fees vary, and those with specified limited income may be able to take advantage of volunteer arts-lawyer groups which exist throughout the states.

Editors' Note: A copy of the Guild's handbook, "Pricing and Ethical Guidelines," can be obtained for $19.95 from the Graphic Artists Guild, 11 W. 20th St., New York, NY 10010.

CELASTIC FACTS

Problem In *Step-By-Step Graphics* Vol. 4, No. 7, artist Ellen Rixford suggests using a product called Celastic in the construction of three-dimensional illustrations. I have contacted art and plastic suppliers and have not been able to locate this substance. Where can I find more information on this subject?

Solution The Celastic Rixford uses was manufactured in Germany and is no longer available due to its toxicity to workers at the manufacturing facility. A newer version of Celastic is available but is not recommended for three-dimensional illustration or sculpture because it does not mold well and has a tendency to crumble and crack. However, a newer product called Form Fast, manufactured by Plastic Adhesion Technologies Corp., was recently developed by a group of frustrated Celastic users who could no longer obtain the old product. Available in three grades, Form Fast performs like the old Celastic, and according to Plastic Adhesion Technologies' President Tom Peterson, it is 100 percent user safe. For more information on Form Fast, contact Peterson at the following address:

Plastic Adhesion Technologies Corp.
P.O. Box 1366
Eatontown, NJ 07724
(201) 542-2320 ■

If you would like help solving a visual communications problem, send your questions to "Solutions," Step-By-Step Graphics, 6000 N. Forest Park Dr., Peoria, IL 61614-3592.

Photo by Ellen Rixford

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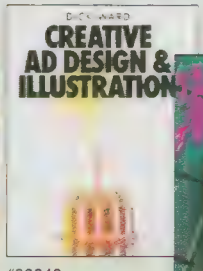

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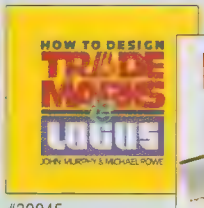

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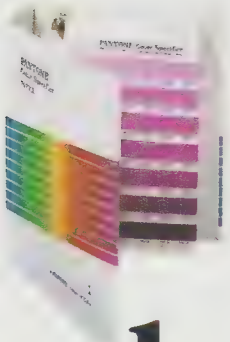

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Teaching Tales Designed with Touch

Dallas designer Jack Summerford art directs the award-winning "Teaching Tales and Verses" for AT&T.

As daily life becomes increasingly automated, notice the rise in things tangibly human. Fax machines, talking cash registers, microwave popcorn, and toys like Nintendo are countered by a revival of anything "natural" or "country"—like the fashions of Laura Ashley, television shows like "thirty something," or the ultimate in romance revisited—the new *Victoria* magazine. Future-forecasting guru John Naisbitt offered this theory in his best-selling book "Megatrends:" "The more we get high-tech, the more we need 'high-touch.'"

Corporate and technical behemoth AT&T actually has made pioneering efforts in appealing to this phenomenon with its classic ad campaign "Reach out and touch someone." In fact, when this highly structured company held executive creativity seminars, executives intentionally chose not to employ the latest in technological advances; they used something much more personal: fairy tales and a series of poems, each artfully designed and crafted into booklets by Dallas designer Jack Summerford.

Diane Cory, AT&T's Atlanta-based director of the seminars at the time, authored the pieces and hand picked Summerford for the project. "I've done a lot of projects with Jack over the last 12 years, and he is, by far, my favorite designer to work with. I knew I had something really special with this project, and even though we were in different cities, I knew he'd understand what I was trying to do," says Cory, who admits she had no idea how she wanted the project to look. "I didn't give him any parameters other than 'Here's sort of what I'm thinking about—can you help me?'"

CONCEPTING

After reading a rough draft of the stories, Summerford was struck by the innovative quality of the project: The premise of the "AT&T Teaching Tales and Verses" was that if you state a problem to executives in a creative manner, they will respond with creative solutions. "That a huge corporation would implement a program this imaginative was too good to be true," says the artist, who began developing his concepts immediately.

Originally, the project was to be much bigger: Six stories, the verses, a manual, a notebook and a carrying case were slated for the seminars. Because of budgetary constraints, the series was trimmed to four tales and one book of verses. From the very beginning, though, Summerford was thinking collectively. "Each story was to have an individual appearance while fitting into a 'family' look," says the artist. To achieve this, he decided to give the stories a children's-book look. "Although that's not a real avant-garde approach to this problem, I felt it was appropriate, and not because the AT&T executives would be treated like children, but that their corporate problems were being simplified and presented to them almost like 'Gather 'round me children, and you will hear a

tale,'" explains Summerford. The approach also allowed him to use visual elements traditionally found in children's books as tools to unify and separate each piece.

The tales are presented in their own box. More than an organizational tool, the box represents a "gift" to those in the seminar. Explains Cory: "Whenever I do a workshop, I always give a psychological gift before I ask for anything in return—which would be that someone consider a new way of looking at something, like creativity in the workplace." When she explained this to Summerford, he devised the boxed presentation.

STYLIZED TALES Summerford and Cory decided to assign Dallas illustrator Genevieve Meek the task of illustrating the four booklets of tales. Both had worked with Meek before, and they felt her loose, graceful style with pen and ink would complement the quality of the stories. "Her style has the capacity to be so delicate while allowing for a lot of subtlety and complexity—she could bring a lot of richness into the illustrations," explains Cory.

GRAPHIC VERSES Summerford and Cory agreed that the designer's widely recognized and specialized cut-paper style of illustration would better suit the verses. "The poetry is a little more from the gut than the tales, which have that definite fairy tale appeal to them," Summerford explains. "The verses are pretty blunt and a little more serious. I thought the illustrations needed to have a more graphic power to them."

TALES' THUMBNAILS AND ROUGHS

For each of the tales, Summerford created a series of thumbnail sketches. This gave him an idea of how many pages the booklets would be, and helped him plan the placement and size of the illustrations as well. From those, he created rough layouts to size. (See Figures 1 and 2.) These were used to prepare the illustrator. "I gave Meek the rough layouts and also an idea of where I thought the page breaks and new paragraphs would be. She would then have to try to find areas within those breaks that would accommodate illustrations."

UNIFIED AND UNIQUE LOOK The children's book format also allowed Summerford to incorporate several traditional devices which he indicated in the rough layouts. For example, he noted where he wanted to use borders, small lead-in illustrations, and special type treatments, like initial drop caps and larger letters. These were the very elements that would solve the "family look/individual look" problem. "Oftentimes the problem dictates the concept and that, in turn, dictates the style. That's where the borders come in. Genevieve's illustration style would offer enough of a thread of continuity throughout the series, so the border treatments were the main thing I could give a spark of conceptual thinking to," says Summerford.

He used the drop caps and initial illustrations to set the tone and bring the reader into the story. "Large initial caps are commonplace in storytelling," explains the artist, "and more than books or brochures—these were stories and that was the key. I wanted it to have a look of storytelling."

ART DIRECTION

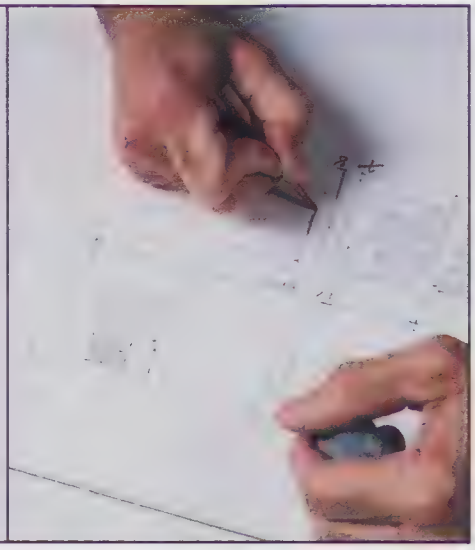
While Meek had the layouts as a blueprint of sorts, the two met to discuss style, which Summerford wanted to vary just

slightly from tale to tale. For example, Summerford suggested a very light line drawing without a lot of fussy detail for the first story "The Two Kings." "Though there were a couple of instances where I interjected or inflicted some ornamental design devices that would affect the illustration—I kind of strapped her with the little hairline border rules and pockets in the corners." For the second story, "The Dancing Stars," they decided to maintain the light line treatment, but Meek executed heavy, dry brush borders. Summerford also ordered a lot of dingbats for the stars which contributed typographically to the illustrations. For the story "The Lion and the Princess," a jagged, cut paper border was created by Summerford. For the last story, Meek added Conté crayon as an accent to her drawings.

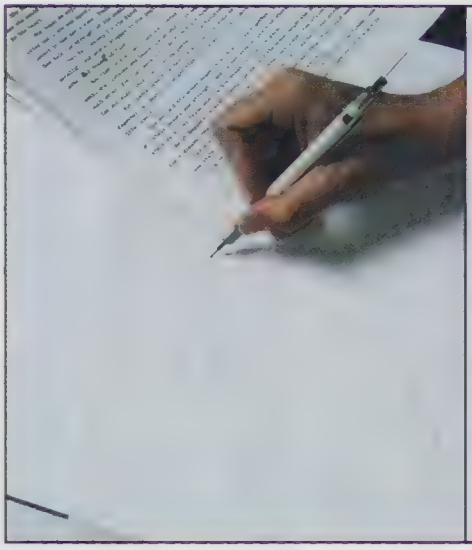
"Jack wanted the drawings to be light, simple and fine line, and besides that, I had a lot of free reign," says Meek, who did her own concepting and thumbnails for the illustrations. (See Figure 3.) "The concepting came directly from the stories, which are just wonderful. All of them are full of psychological symbolism, so I tried to create symbolic-looking drawings," she explains. After she mapped out her ideas with pencil sketches, she showed them to Summerford. (See Figures 4 through 7.)

REVISIONS Summerford had very few changes in the illustrations. The majority of revisions were requested on "The Lion and the Princess." "There were a lot of animals in the story, and in drawing them, I had eased over into cuteness," explains Meek, who then streamlined her sketches and then sent them on to Cory, who checked and approved them.

FINAL ILLUSTRATION To create the final illus-



1 Summerford first creates a series of thumbnail sketches for himself. This pinpoints the total number of pages that are involved and helps him plan the placement and size of the illustrations.



3 Meek creates her thumbnail sketches while examining the text to see where breaks occurred in the copy. "Jack wanted the drawings to be light, simple and fine line, and besides that, I had a lot of free reign," says Meek.

2 The designer gives illustrator Genevieve Meek rough layouts for the position of the illustrations to indicate size and point up where he wanted an illustrated letter for the beginning of paragraphs and where he wanted borders.

4 For the "Harp and the Sword" story, Meek sketches ideas using photographs of hair, fire and so on, as reference for the illustration of the man and the woman. The stories featured a lot of symbolism and Meek tries to capture that tone.

Photos by Marianne Barcellona

trations, Meek used a Faber-Castel TG1 pen, No. 00, on Strathmore cold press, 100 percent rag illustration board. "It has a little tooth to it, and you can use an electric eraser on it and it won't destroy the surface," adds Meek. (See Figure 8.)

DUMMY AND TYPE

In the meantime, Summerford was having type set. He only used one typeface, ITC Century Light Condensed, set in various sizes throughout the series. "It's a face I associate with children's books for some reason," he says. "It has a schoolbook, educational look." Once Cory proofread and OK'd the set type, he laid the galleys into dummy form, along with photocopies of Meek's illustrations. (See Figure 9.)

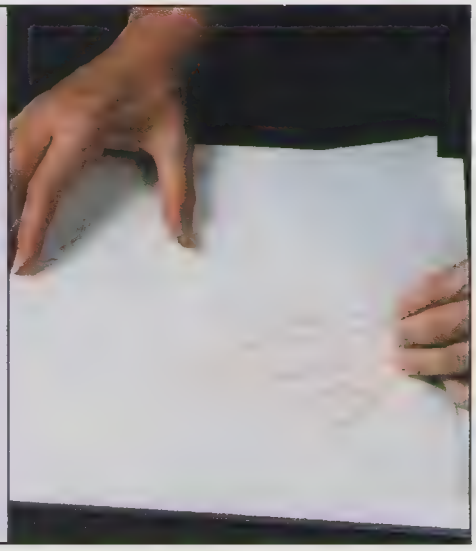
Getting the type to fit and flow as planned was a challenge at first. Even at the dummy stage, Summerford was adjusting typographic elements. (See Figure 10.) "Once we got the first one done, we got all of the leading and kerning and pagination kinks worked out," says Summerford. "Although it took a few runs on that first one, after that it went pretty smoothly." The dummy was then sent to Cory, who was extremely pleased. "I just said 'Oh, wow! This is really wonderful!' " she remembers. "If I changed anything it was so minute it was unreal." Once everything was approved, Summerford created the mechanical boards with clean galleys and photostats of Meek's illustrations. (See Figure 11.)

COLOR To indicate color placement on the mechanical, Summerford wrote instructions to the printer on a tissue overlay. (See Figure 12.) Color, too, served to unify and separate each tale. The palette Summerford chose consisted of green,

5 To develop the hand shapes for the final "Harp" illustration, Meek shoots Polaroids of her own hands which she then traces to achieve the final shape. She reduces these, and implements them twice in the illustration.

7 When her drawings are complete, Meek shows them to Summerford. The majority of the changes occurred on "The Lion and the Princess," where some of the artist's animals had "eased over into cuteness."

6 Conté crayon is used as a stylistic tool that differentiates the "Harp" story from the others. Meek created Conté crayon flames which she later traces and places over the drawing to indicate positioning to the printer.



8 Working from the pencil drawings, Meek creates the base art using a TG1 Faber-Castel technical pen, No. 00. Her surface of choice is Strathmore cold-press, 100 percent rag illustration board, which allows for erasures without damage to its surface.

LONE STAR DESIGNER

In Texas, where the unofficial motto rings "bigger is better," designer Jack Summerford has no problem being a lone star. His one-man corporation, Summerford Design, Inc., suits him just fine, even though he used to be a big fish in a big pond: After nearly a decade of distinguishing himself with Dallas' famous Stan Richards Design Group, where he and other luminaries like Woody Pirtle, Jerry Herring and Bob Dennard (to name a few) stormed the New York design market, Summerford went solo in 1978.

When he launched Summerford Design, he thought business would come easy because of his Richards association. He quickly learned otherwise. To rustle up business, he subscribed to a business directory and started making calls, and calls . . . and calls. Summerford estimates that for every 25 calls he made, one or two jobs resulted. The effort paid off, and now most of his business comes from referrals. "When I first went into business I was doing a lot of annual report work, and I still like doing annual reports, but with all the merger and acquisition stuff a few years ago, my annual report clientele was diminished significantly. I was fortunate in that I had a lot of replacement work that came in—corporate identity, brochures—now I think I've got a very well-balanced clientele and workload in terms of variety of projects."

HISTORY It is not so surprising that Summerford's early professional plans never included settling in Texas. New York was in his big picture. "In the '60s, New York was still the center of our industry, and just about everyone felt that they had to end up there at one time or another," he says. But after graduating from Washington University in St. Louis in 1965, he returned to Dallas first, where he had finished high school. He was getting married, his wife had a job as a teacher there, and he thought it would be a nice, safe place to start out.

After working for a year as a layout artist in the advertising section of a department store, he worked as an assistant art director for a firm he thought would be the next Push Pin Studio. He so firmly believed he was in on the ground floor of something big, he actually turned down Stan Richards' first job offer. "Shortly after that, the studio where I was started changing complexion. I suddenly saw it wasn't going to be all that I expected," says Summerford. "About six months later, Stan had another vacancy, and that time I took it." Although he never made it to New York, Summerford has clearly helped to establish Dallas' reputation as a leading design center.

Summerford Design One of the designer's best known trademarks was completed for the USA Film Festival.

In 1981, Summerford joined acclaimed illustrators Bart Forbes and Jack Unruh, and they moved their respective offices into a remodeled turn-of-the-century house in a tree-lined, antique store and gallery area of downtown Dallas. Although they share the building, each maintains separate office space and career autonomy.

ADVANTAGES It is the autonomy that Summerford relishes. "When someone calls me up, I have absolute freedom. I don't have to check someone else's schedule, ask permission or second guess how it affects someone working for me," he says, citing this as a client advantage as well. Often, he can establish a client relationship within one phone call. "We can arrive on pricing and scheduling and get everything settled in the first 20 minutes of our discussion."

Summerford also enjoys the diversions of judging shows and speaking engagements. "You can also combine business and pleasure—like the Aspen Design Conference or the AIGA conferences." An avid fitness enthusiast, he also makes time during the day for two-hour workouts.

PITFALLS The disadvantages of being a one-man show are annoyances that will never outweigh Summerford's business freedom. "If the phone rings, I have to interrupt what I'm doing. And if I'm out of the office and people don't like talking to a machine, I may lose business," says the artist, who also has to do his own administrative work, bookkeeping, and office management. "I don't have 40 hours of that kind of work for someone. It's more like 20 hours a week for someone, and that's hard to find—it's not a career move for someone else to organize my life for me."

QUALITY COMMITMENT In the meantime, Summerford's weekends are reserved for the business aspects of his work. To him, it is a small price to pay for staying on board. "The price for having a big firm is that you do less design and become more of an administrator as a principal of that firm. I like the hands-on design part." Because of this, Summerford is unwavering in his commitment to stay small. The size of Summerford Design is, in fact, his insurance policy for quality. His motto: "When you buy Summerford Design, you get Summerford design."

Photo by Gary McCoy

violet, orange and red. "Although it was a four-color run, I didn't necessarily use all four colors on each piece," explains the artist. "I wanted each one to have a different color scheme, and I also would let different colors dominate each one. I wanted bright, cheerful colors, which I'm prone to."

COVER IMAGES Although the tales themselves were illustrative and flowing, Summerford created highly graphic images for each cover. Each design occupies a narrow vertical rectangle and contains decorative elements that in some way reflect the story. For example, on "The Two Kings," which is subtitled "The Magic Mirrors," Summerford places a pair of twos side by side, with the left numeral flopped. The result is a "mirrored" image that also forms the basis of a heart shape. In the dancing stars, the title type is set on two alternating lines for every other letter, forming a "dancing" effect. A Conté crayon heart is centered on the cover of "The Harp and the Sword," but the upper and lower borders are jagged, blade-like strips of cut paper.

To create the cover for "The Lion and the Princess," Summerford used a rubber stamp in the design of a palm tree. After achieving the right ink balance on the stamp, he reduced the image on his office copier. This was then photostatted 30 times. He placed six of the final tree images in the border, in two rows of three, to create a stylized jungle motif. (See Figures 13 and 14.)

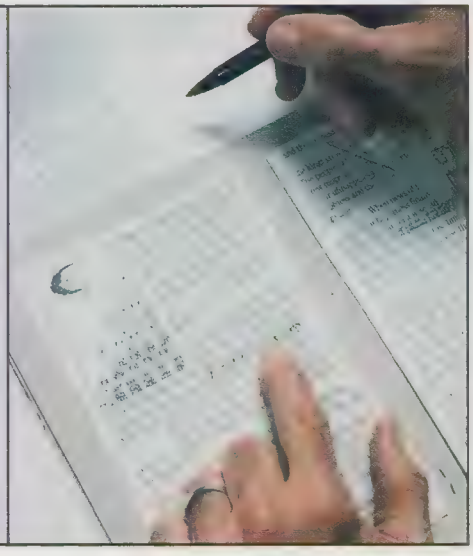
VERSES

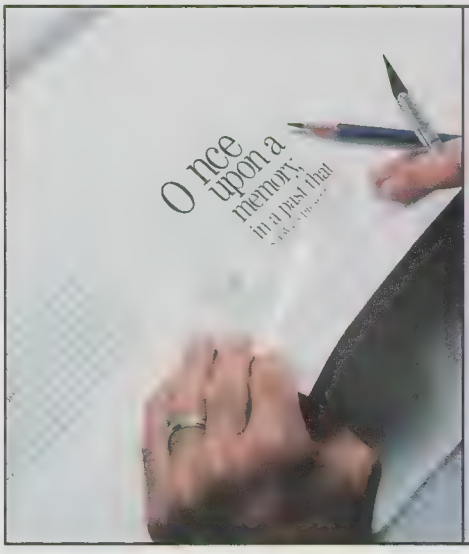
Although the tales and verses belong together as part of the seminar, there are

(Continued on page 40)

9 Summerford photocopies Meek's illustrations and puts them into rough dummy form with the first set of type. He only used one typeface, ITC Century Light Condensed, set in various sizes throughout the series.

10 When the type returns, he checks it carefully to make sure the changes have been made and to see that no new problems have occurred. "It took a few runs on that first one; after that it went pretty smoothly," says Summerford.





11 After Cory wholeheartedly approved the dummy, Summerford creates the mechanical art. A photostat is made of the typeset copy and the illustration, and Summerford lays this down on a board.

12 On a tissue overlay, Summerford uses a blue pencil to indicate color to the printer. The palette Summerford chooses consists of green, violet, orange and red, all of which would be printed as flat colors.

OUR 'STEPPING OUT' COVER

Although Dallas designer Jack Summerford calls on a variety of design techniques and media, his trademark technique is working with brilliantly colored, loosely arranged cut-paper designs. So when *Step-By-Step Graphics* asked him to create a cover design, he brought out the scissors.

CONCEPTING/SKETCHING After doing several thumbnail sketches, Summerford selected the step image. "This was the first idea I had, and I thought this big step was just kind of neat—a pretty graphic element. The thumbnail just jumped out at me," says the artist. He also decided to give the piece a three-dimensional quality by inserting foam board in between the different layers of paper. He reworked the sketch to fit the cover format and sent a copy to the magazine, indicating with pencil shading where the shadows would appear from the spacers. (See Figure 1.)

COMMENTS Production concerns prompted Summerford to flop the image; a gatefold ad on the inside cover would inhibit the intended bleed. And from a publication design standpoint, editors liked the idea that the direction of the step would draw readers inside.

BUILD UP Basically, Summerford's technique for the cover is a building up process using papers, colors and dimension. He begins by planning his color palette through the use of a Pantone swatchbook, indicating color placement directly on his pencil sketch. For our cover art, he decided to use Pantone colored papers No. 3275 and 3255 for the greens, No. 2725 and 2705 for the purple, No. 251 for the magenta, No. 1365 and 1355 for the yellows, as well as Pantone double black and warm gray. (See Figure 2.)

CUTTING Summerford owns two pairs of scissors, one large and one small. He also uses an X-Acto knife, but not nearly as much as the scissors. "I cut fast to get that rough look, and sometimes I cut a shape four or five times before I get it the way I want it. Unfortunately, I end up going through a lot of paper sometimes."

He cut while eyeing his sketch, although sometimes he makes a photocopied pattern of the sketch, places it on the paper and cuts around it. He prefers the freehand cutting because it lends a spontaneous quality to his work. "It's not going to be exactly like the layout and some nice little things will happen with the edges," he explains.

Once his color scheme is determined, he begins to cut, noting that he used his knife a bit more than usual to complete the project, specifically for the stripes and the diamonds. (See Figure 3.)

ASSEMBLY After all of the individual pieces are cut out, Summerford begins the assembly. He uses spray mount to attach the stripes and the diamonds, but employs double-sided tape to adhere the foam board to the cut-out pieces and subsequently to the yellow background. (See Figure 4.) For extra dimension, the cuff is applied separately, and the cuff's stripes are added after the cuff is attached. (See Figure 5.)

Wanting the shoe to appear neither perfectly mechanical or totally loose, the artist uses a T-square to apply the shoe to the background. He covers his fingers with a paper towel so as not to soil the art. (See Figure 6.) Finally, he burnishes the art with a clean roller. (See Figure 7.)

PHOTOGRAPHY When the entire image was complete, Dallas photographer Gary McCoy shot a transparency of the art, using a single light source with a minimal amount of fill. "I tried to maintain the color and the integrity of the piece while still maintaining the shadows," he says.

Figure 1

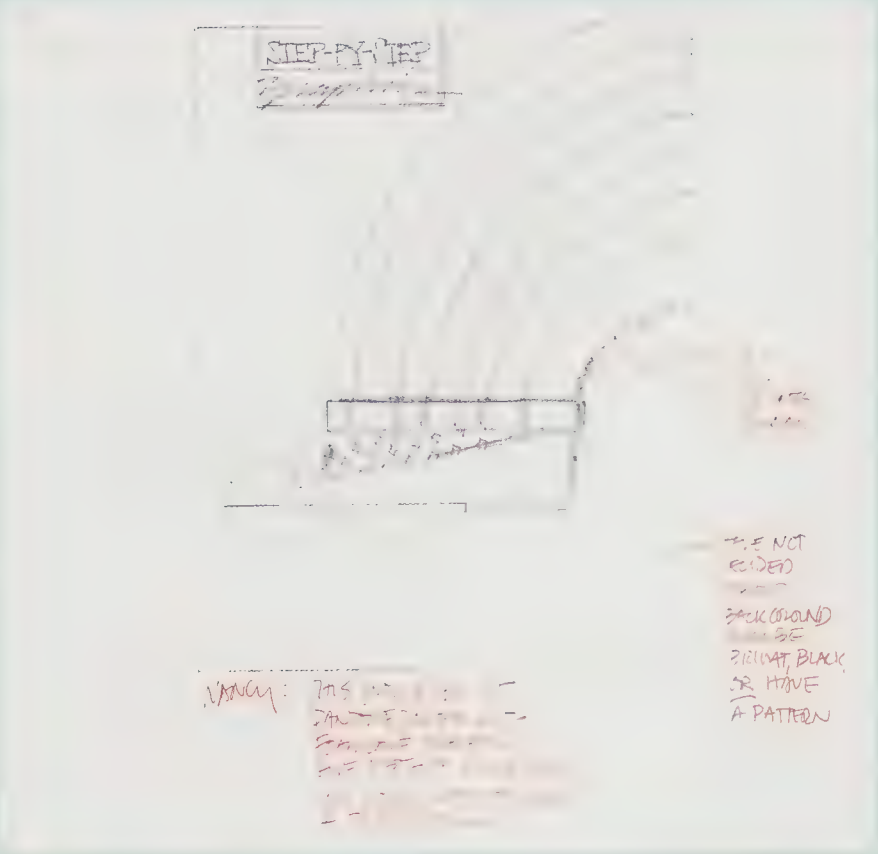


Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

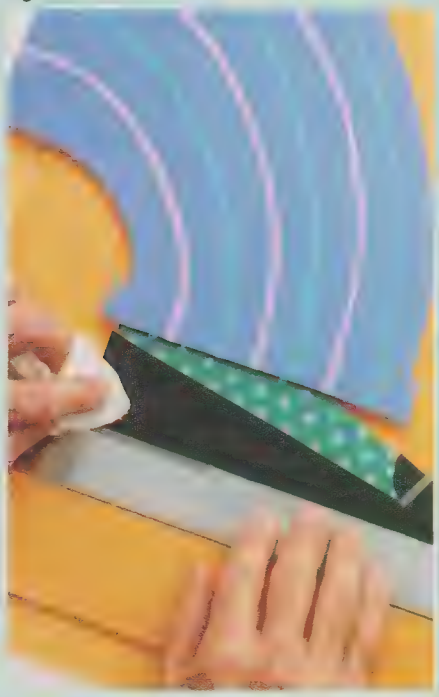


Figure 7

Photos by Gary McCoy

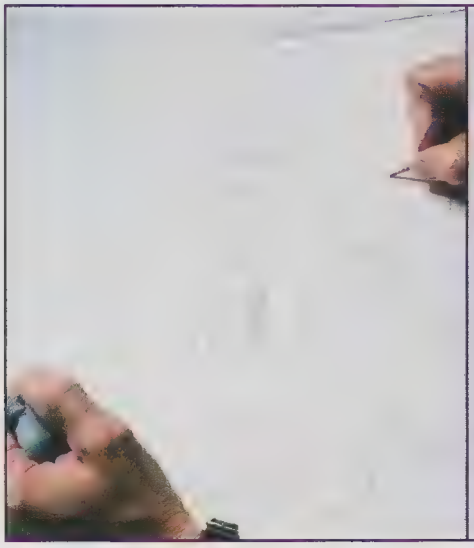
(Continued from page 37)
several design elements that separate them. An immediate difference between the two is size. The tales are smaller, 5¼ x 8³/₈-inches, and the verses are 7¼ x 10¼-inches. "This was purely to differentiate the two," explains Summerford.

The illustrations and content are completely different from the verses as well, although they serve the same purpose. For example, part of the introduction to the verses reads: "These AT&T Teaching Verses are a companion to the AT&T Teaching Tales. They are part of one person's seemingly paradoxical inward/ outward journey. A journey rich in surprise, adventure, joy and pain. A journey much like the one we find in business." The verses, or poems, were illustrated by Summerford in his trademark, cut-paper style. (See opening spread.)

CONCEPTING AND CREATING VERSES "I'm very cautious to call what I do illustration, but I picked the ones I was going to illustrate intuitively," says Summerford, who paginated the verses first, and then executed a series of thumbnails and rough layouts. (See Figure 15.) Then, using Pantone paper, he cut the shapes with scissors or an X-Acto knife to create a comp. Cutting fast with scissors gives the shapes that spontaneous look he is known for, while the X-Acto gives a more precise cut. He often cuts a shape four or five times before he is satisfied. "But then I go back and cut mechanical overlays," he explains, "I try to put as much down on the board without doing pencils." (See Figure 16.)

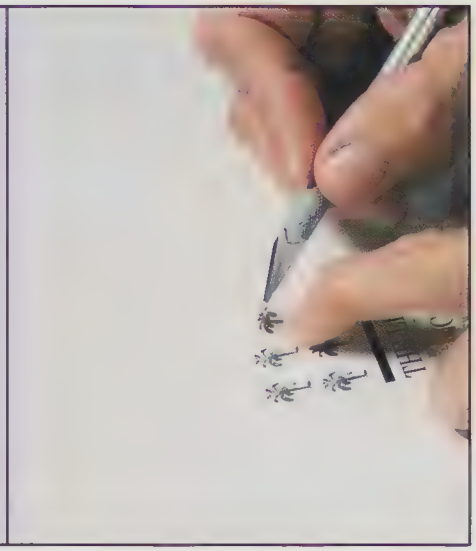
The illustration is cut loosely to the style of the sketch using scissors and red adhesive masking film. If a shape needs more exact treatment, Summerford photocopies his sketch and lays that on top of the masking film as a pattern from which to cut. He photostats the art and, in order to

13 For the palm tree cover image on "The Lion and the Princess," Summerford uses a rubber stamp. After achieving the proper ink balance, the stamped images were reduced on an in-office copier and photostatted 30 times.



15 For the verses, Summerford paginates the poems and starts with thumbnail sketches of the illustrations according to where they fall in the layout of the book. "I picked the ones I was going to illustrate intuitively," says Summerford.

14 The photostats were then individually placed within a border on the mechanical. Each cover featured a theme that embodied the story. Here, the trees establish a stylized jungle motif, stacked in two rows of three.



16 After comping the image with cut paper, the verse illustrations are created by cutting red adhesive masking film with scissors and applying it to illustration board. Cutting quickly with scissors gives the shapes that spontaneous look for which the artist is known.

break out subsequent colors, he creates Amberlith® overlays. (See Figure 17.) The actual art is just a mechanical since the piece would be printed as flat color. "The base art is pretty ugly," says Summerford.

As with the tales, Summerford wrote his instructions to the printer on a tissue overlay. The verses contained many more notes because the illustrations had more color breakdowns. Whereas the tales had illustrations in one solid color with different colors appearing only in the borders and embellishments, the verse illustrations contained two or three colors in the illustrations.

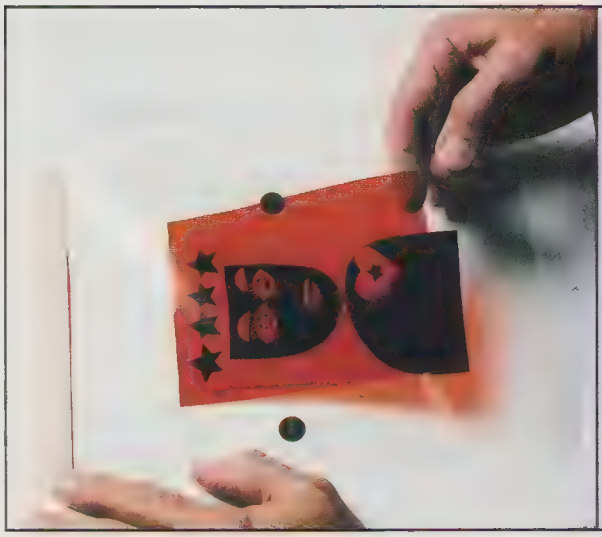
PRINTING

Summerford used 3M Color Keys to proof the booklets, and he did not request any changes. The paper he specced for the tales was Wheat Simpson Gainsboro text weight. Simpson Gainsboro cover stock, again in wheat, was specced for the cover of the verses, and soft white Mohawk Superfine for the inside verse pages. To trim costs, three of the verses were ganged on one press sheet. Because of delays, the remaining tale and verse books were printed in two separate runs. (See Figure 18.) "Even though the tales look like an elaborately produced piece, we did watch budget on it. We wanted as much color as we could get out of it," says Summerford. "Basically, we printed the books using four flat colors, and by mixing and matching the four colors, the effect of a multicolor job was achieved." (See Figure 19.)

FEEDBACK

So far, the Teaching Tales and Verses have been received by some 2,500 managers and union leaders inside of AT&T as well as an approximate 1,000 people in Cory's new workshops. They have won several design awards, and at the personal/personnel level, the success of the pieces has been dramatic. A number of executives have even become teary-eyed upon reading them. "Technical and corporate culture is very left brain, very linear, very rational," explains Cory. "The tales are really an attempt to bring the right brain, the creative part, the thinking, back into the business place. AT&T is by nature so technical and so regimented to care for all of the equipment—this is a high-touch response to all of that." ■

—Susan Dinges



17 Summerford makes a photostat of the masking film illustration to create the mechanical. To break out second, third and fourth colors, he cuts Amberlith® overlays and attaches them to the board. The actual art is just a mechanical. "The base art is pretty ugly," says Summerford.

18 After proofing the job with 3M Color Keys, the first three tales are ganged on one press sheet for the most economical printing. The paper specced for the tales was a Simpson Gainsboro (wheat, text weight.) "Even though the tales look like an elaborately produced piece, we did watch budget on it," says Summerford. "We wanted as much color as we could get out of it."

19 The four smaller tales booklets were run on Simpson Gainsboro Wheat, text and cover stock, and the verses (at far left) were printed on the same cover stock with Mohawk Superfine in soft white for the inside pages. The "gift box" was printed separately and hand-assembled. They printed the books using four flat colors, and by mixing and matching the four colors, the effect of a multicolor job was achieved.

Color Patterning With Gouache

Nancy Stahl combines strong design and rich color in a fashion spread for the German edition of Esquire.

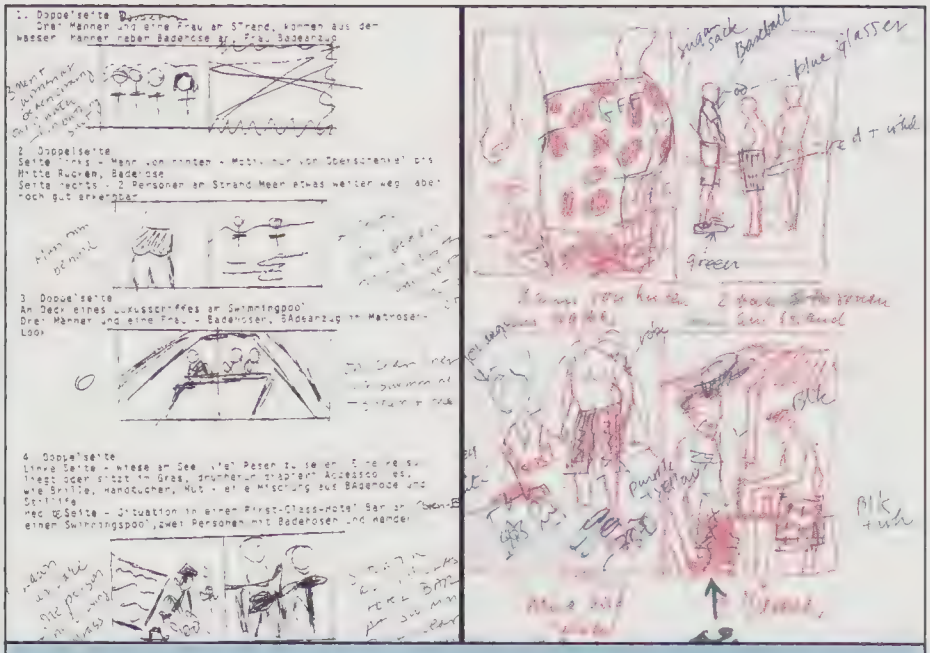
When a friend introduced Nancy Stahl to the work of the German artist Ludwig Hohlwein, she was immediately taken with his use of light, shadow and simplicity of form. "I have always liked the way light plays on faces and I liked the way Hohlwein simplified his images by leaving things out," says the artist.

The New York-based illustrator had been working with colored pencil over watercolor for a number of years, but she felt the technique was somehow just "too feminine, and too slow." With Hohlwein as her guide, her search for stronger, more colorful images soon gained momentum.

An acknowledged master of the German poster in the early part of this century, Hohlwein epitomized the figurative and painterly approach to the genre. He was influenced by the Beggarstaffs of England, whose simple form and broad expanses of flat color revolutionized poster painting in the 1890s. (See Figure 1.) His work is immediately recognizable because his subjects were connoisseurs, society

'Esquire' Fashion Spreads Nancy Stahl's illustrations for the German edition of *Esquire* were painted with gouache on illustration board. The artist prefers to work from dark to light, building up layers of colors from either dark blue, blue violet, green, brown, maroon, or, in this case, black backgrounds.

1 Stahl was impressed with Ludwig Hohlwein's use of light, shadow and simplicity of form. Hohlwein epitomized a painterly approach to the genre. (Reinhold-Brown Gallery, New York, N.Y.)



2 *Esquire/Germany* Art Director Arne Harbers' fax to the magazine's representative in the U.S., Monika Kind, details in German the kind of illustrations needed for a fashion spread for the May, 1989, edition. When German stylist Sascha Faul flew to New York with the clothing Stahl was to illustrate, he brought with him Harbers' detailed thumbnails. On a tissue taped over the thumbnails, Stahl makes her own notations regarding the clothing.

3 With her Mamiya Sekor 35mm camera, Stahl took eight rolls of reference photographs with Polaroid instant slide film—PolaPan for black-and-white slides, PolaChrome for color. The film has been on the market for approximately three years and is developed in five minutes with a processing unit that is sold separately. She draws from the black-and-white slides and uses the color slides as a reminder of color.

4 Using a Kodak Carousel slide projector, Stahl projects her black-and-white slides onto a wall and sketches the figures onto tracing paper, proportioning them to the size she needed.

Photos by Roy Gumpel

ladies, gentleman sportsmen and affluent tourists.

While the German master used several techniques, including working transparently from light to dark, Stahl never felt comfortable leaving the white of the paper. So she developed a dark to light technique in which she first covers the entire surface with shadow color. All light areas are "brought up" from the background color. The gouache provides intense, flat color that gives her images a poster appearance.

But her hopes that the new technique would be faster than colored pencil proved to be false. As it turns out, it takes her anywhere from two days to a week to complete an illustration, almost the same amount of time she spent on her colored pencil drawings.

The success of her first experiment—an image of Clark Gable reproduced on a Paper Moon greeting card (and on her own self promotion postcard)—prompted her to show the new style to then *New York Magazine* Art Director J.C. Suáres. He agreed to let her try out the new approach in an assignment: two bulls in head-to-head combat for an upcoming cover.

While she continued working in both styles, the new technique eventually took precedence. Although she continues to experiment, this approach has characterized her style since the late 1970s.

Art directors are often attracted to her work because the style is reminiscent of the 1930s and '40s; they soon realize though that Stahl's range is much broader. Joseph Stelmach, director of art and packaging for RCA/BMG Music, has often used Stahl for re-issued jazz labels. "She is an excellent illustrator and very versatile," says Stelmach. "I think a lot of her work has a period style, but in many ways, she seems to have redefined that period of the '30s and '40s. And she has a fantastic sense of color; she may be using subtle colors, but they are marvelous. She has also branched out and does things that are quite contemporary. She did a jazz illustration in which she first worked out the design on a computer and it was quite exciting, very bright, very different."

FASHION SPREADS FOR ESQUIRE

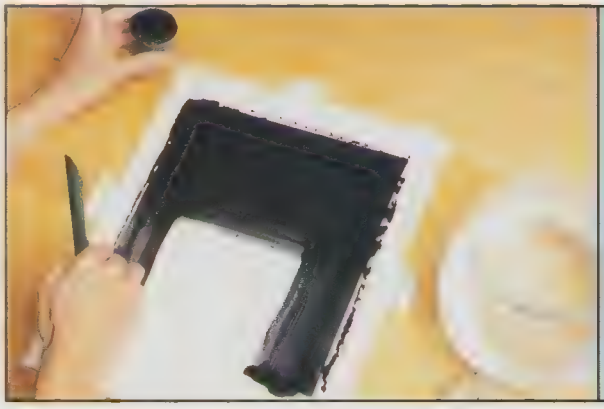
Arne Harbers, art director for the German edition of *Esquire* magazine, concurs with Stelmach. "She is very typical of the *Esquire* of the '30s and '40s," explains Harbers. "She is old fashioned, but in a modern way—and that is what I like about her work and why I use her."

Harbers has used Stahl to illustrate fashion spreads for the Munich-based magazine, which began publishing in November, 1987. (It is published independently from the U.S. *Esquire* by Heinrich Bauer Publishing, the second largest publisher in Germany.) *Esquire/Germany* is atypical of most European magazines in that it uses primarily American (90 percent) and British illustrators because the illustration field is extremely small in Germany, as compared to the U.S. and UK art markets.

"We have only two or three illustrators, and their work always appears in other German publications," explains Harbers. "*Esquire* has a unique magazine style—there are no other magazines like this in Germany—and I think American illustrators are very special and right for this publication."

Harbers relies upon American talent such as Anthony Russo, Steve Brodner, Keith Bendis, Chris Payne, Allison Seiffer and others. He was familiar with Stahl's work from the annuals and from a fashion spread she illustrated in 1987 for the American *Esquire*. That spread, which he says had the flavor of "Casablanca," prompted him to hire Stahl to do a fashion spread for the June, 1988, issue of his publication. Because of its success, he

5 In her first drawing for this illustration, Stahl shows the model's hand (top). In the only change required, Harbers asked her to eliminate it and focus on the bathing suit. To do that, she enlarges the drawing on her Canon (NP 400) photocopier and crops it (below). In completing the six sketches that were required for the entire *Esquire* assignment, Stahl spent three days.



6 First, the artist covers the entire board, a Strathmore double-ply illustration board, with the background color. Although she most often uses dark blue or blue violet, she chooses black for these illustrations because the clothes contained black. She says gouache takes better on top of another layer of color.

used her again in the May, 1989, issue, this time to illustrate swim wear.

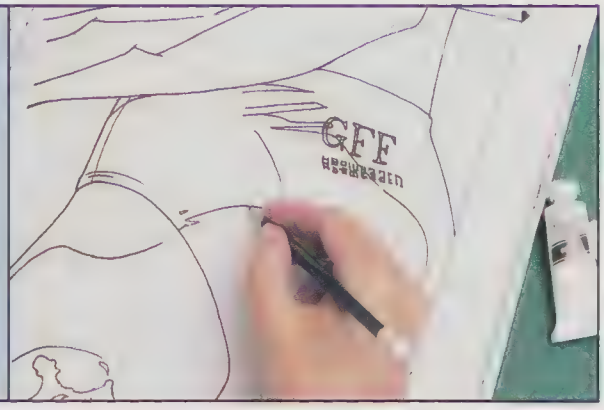
Geographic distance and time differences required that negotiations with the magazine take place with an intermediary, in this case, Monika Kind, who represents the Bauer publishing group in the U.S. Harbers faxed requirements and some rough thumbnails to Kind, who in turn explained the requirements of the job to Stahl's rep, Vicki Morgan.

As part of the arrangements, a German stylist, Sascha Faul, flew to New York with the clothing to work with Stahl while she shot reference photos. The day before the shoot, Faul showed her another series of Harbers' thumbnails that indicated a more specific direction. As she and Faul discussed the requirements, she taped a piece of tissue over the thumbnails and made notes regarding each piece of clothing. (See Figure 2.)

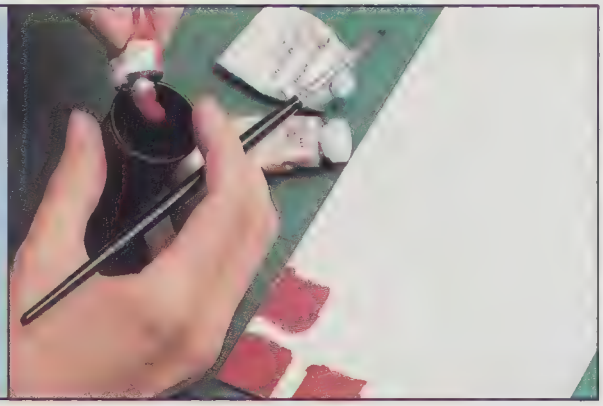
Harbers wanted six color illustrations, two of which would be used as spreads. His ideas included: a casual scene of three men and a woman in bathing suits near the shore; a close-up of the back of a bathing suit; two people on a beach from a distance; three men and a woman near a pool on an ocean liner; scene at a hotel bar and a person lying on the beach or grass.

When she had a general idea of the requirements, Stahl searched through her clip file for reference material that she could incorporate into the illustrations. With the beach-and-vacation theme in mind, she found references for an ocean liner, clouds, water and even a thatched roof she thought would work well in the layouts. This research stage enabled her to plan how she would pose the models and later incorporate the figure drawings into the reference material.

7 When the board is thoroughly dry, the artist lays her tissue or photocopied sketch over it and traces the lines with pencil. The pressure of the pencil leaves a shiny line on the gouache-covered surface. This becomes her guideline when painting.



8 After mixing several different reds and applying them to a test sheet, Stahl settles on a mixture of grenadine red and orange lake light with a little bit of white for the bright red of the suit. She mixes paint in an airtight plastic canister so it can be stored and reused.



9 Stahl paints the brightest part of the red first, which is the reverse of what she would normally do, so she can make sure the red will "read" in relationship to the values and colors she chooses for the shadow areas. Six coats of the red are needed to cover the black.

SHOOTING REFERENCE

Because she would have access to the models and clothing for only one day and did not want to discover after processing that her reference shots were inadequate, the artist decided to use Polaroid instant slide film—PolaPan (black and white) and PolaChrome (color). The film has been on the market for approximately three years and fits into any 35mm camera. (Stahl uses a Mamiya Sekor.) She finds the film quite adequate for her needs. "The black-and-white has good contrast, and although the original color film was not good when I tried it a few years ago—it was pale and grainy—it has improved and is now very good," she says. The artist also uses Polaroid black-and-white print film for test shots. In all, she shot approximately eight rolls of film.

POLAROID'S INSTANT SLIDE FILM According to a Polaroid spokesman, 36 exposure rolls of either PolaPan or PolaChrome film retails for approximately $19.95 each. Another version of the film, PolaBlue, a white on blue film, is also available. A 12-exposure roll sells for $15.30. High contrast versions of the color and black-and-white films are also available. A processing unit is needed to develop all of the instant slide film. What is called a "power processer" sells for $317, a manual version called an "auto processor" for $150. An illuminated slide cutter retails for $48.50, a non-illuminated for $29.50. (For more information, contact Polaroid Corp. at 800-225-1618.)

The PolaPan film was used to shoot the posed models; the PolaChrome to record the color of the clothing samples, which are shot as still lifes. "I like to work from the black-and-white slides because I get a better distribution of light and shadow," says Stahl. "I use the color slides only as

a reminder of the color." (See Figure 3.)

LAYOUTS Layouts called for three men and a woman, but Stahl only used two male models because she knew she could take added shots, change the faces and place an additional figure into the composition, if needed. She made the arrangements to hire the models, which were paid for by the client.

Stahl prepared for the shoot, which took place in her studio/apartment, by moving furniture to one side of the room and hanging gray cloth backdrops, which she prefers because she finds it easier to take light meter readings. She uses a Lowel Quartz D photographer's lamp to light the figures, and looks especially for the distribution of light and shadow and the patterns that form on the clothing and figures.

During the shoot, Faul explained to Stahl what was important about the clothing. For example, in the bathing suit illustration profiled within this article, Faul said it was important that viewers see the label. Stahl says, "He also decided if a collar should be up, and explained how the clothing should look. Then he left it up to me how to do it. I shot a couple of different situations just in case things didn't work out. Basically, I started with one or two ideas for each composition, then set them up to see how they would work out. If it didn't look right through the camera, I would come up with something else at the last minute." The shoot took approximately three hours, with an additional two hours for set up.

SKETCHES

The sketching process went very quickly. Using a Kodak Carousel slide projector, she projected her black-and-white slides onto the wall opposite her drawing table and sketched the figures onto tracing paper, proportioning them to the size she needed. Using an art projector, she then sized and projected incidental reference material onto the figure drawings, and drew in the backgrounds and props. "Basically what I did was take a slide projector, see how the figures fit, cropped to the size of the page and traced away." (See Figure 4.)

When necessary, Stahl used her Canon copier (NP 400) to enlarge or reduce all or parts of her sketches. At times, she even drew the background and figures separately, then pasted them together. (See Figure 5.) She usually draws with a Pentel felt tip pen for its crisp line; it also helps her distinguish from the pencil she uses to transfer her drawings to board.

Stahl says she followed the suggestions given to her by Harbers and Faul, except in several instances. Instead of figures near a pool on the ocean liner, she thought an overhead view might be more dramatic. In another instance, she felt it would be too difficult to render a shirt from a distance and asked to do a close-up. In both cases, her ideas were accepted. And there was only one instance in which she was asked to make a change. In a close-up shot of the back of a bathing suit, Stahl originally showed the model's hand. Harbers asked her to eliminate it and focus on the bathing suit. (Refer to Figure 5.) In all, she spent three days on the six sketches.

DARK TO LIGHT TECHNIQUE

Since Stahl works from dark to light, the background color—usually a dark blue, blue violet, green, maroon, brown, or in this case, black—remains the darkest value in the illustrations. These dark areas usually depict shadows. This may seem a

10 The intermediate shadow color, a dull red, is mixed with some of the red used for the light area, plus raw sienna and spectrum violet. Paint is applied with a No. 3 or No. 4 Winsor & Newton round sable brush.

11 While at first she thought she may only need one shadow color, it soon becomes apparent that a second is needed. She settles on a violet, which is mixed with the intermediate red, spectrum violet, cobalt blue, black and white.

12 Stahl paints the fleshtone areas, in this case, the arm, with a mixture of naples yellow, raw sienna, grenadine red and white. Four coats of the color are needed to cover the black.

STRONG DESIGN, RICH COLOR

"You should see this photograph I have on my wall that was taken when I was four years old," says Nancy Stahl, explaining her early interest in art. "I am doing this great paint-by-number picture of a turkey. I started back then, and it is what I have been doing all these years."

Apart from that early memento that seemed to forecast her future, there is other evidence that Stahl chose the right career. A 16-year veteran of the industry, she enjoys an established reputation among some notable clients including numerous magazines, record companies like Warner Records, book publishers like Villard, clothing manufacturers such as Interwoven and LeTigre, and film producers like Disney's Touchstone. Recently she created the poster for Touchstone's "New York Stories."

A product of Long Island, New York, Stahl always leaned toward illustration, even in the art classes she took in high school. When it was time for college, she opted for the University of Arizona, but two years later transferred to Art Center in Los Angeles, where she first majored in fashion illustration. She soon switched to general illustration for the variety it provided. "I am not a trendy person and didn't like doing things 'on the edge' of fashion," she jests.

When her funds ran out, she left school and decided her best prospects were on the East Coast. With $200 in her pocket, she went back to New York and landed a job painting patterns for a textile firm. In her spare time, she began showing her portfolio and soon had enough work to quit her job.

But keeping up with the demands of running a business, she soon discovered, often got in the way of producing artwork. "I was good at record keeping, but I wasn't good at negotiating. I had a hard time turning down jobs that weren't appropriate, and it took up far too much time," says Stahl. Her solution was to find a representative, Vicki Morgan Associates, with whom she has been associated since 1977. "[Vicki] has made a big difference in my business. Having someone on your side really helps. She gave me a sense of value and got me to the point where I stopped doing spot illustrations. I decided I wanted to be in a different league, and if it hadn't been for her, I wouldn't have done that." Recently, Stahl also took on a West Coast rep, Kovac and Sweeney. Her reps handle all initial client contact and negotiations.

Designing With Color Stahl's poster for Touchstone's release, "New York Stories" (above); A.D. Anthony Sella. Stahl's "Work in Progress" for the clothing manufacturer LeTigre (below); A.D. David Bender.

Like many professionals, Stahl complains about the lack of artistic freedom in illustration, but she also recognizes the advantages of her tenure in the industry. "I think it is hard for someone just starting out," she explains. "It seems like there are fewer jobs out there. It is harder to get your portfolio seen because it seems that art directors want to use known entities. Everyone is scared to spend their money when they don't know what something is going to look like. But art directors are often not at fault because they have people over them that they don't want to cross. Sometimes some very stupid decisions are made because someone who is not involved in art thinks for financial reasons that something has to be a certain way. They simply underestimate their public."

Album/CD Cover A portrait of jazz artist Johnny Hodges for RCA/BMG Music. A.D.'s Joseph Stelmach and Neal Pozner.

most unusual approach since the artist is working with gouache, a medium that picks up underlying color with each successive layer and has a tendency to crack if the build-up of paint is too great. However, the artist has circumvented these problems and, in fact, uses them to her advantage. If an interesting color develops as a result of the many layers of paint she uses to cover the dark background, she may keep it. Her reputation as a colorist may be in part due to this approach.

The artist has also discovered that the gouache seems to take better on top of another layer of color. "I sometimes have trouble with certain pigments, but I never could get the even, flat coats of paint without the background color first," she explains. The difficulty, of course, is that it sometimes requires as many as eight layers of paint to achieve some light colors, which is why it can take the artist a week to finish an illustration.

Cracking is another pitfall Stahl has learned to live with and often avoid. "Some light colors can be just on the verge of cracking when they cover. I am often standing over them saying: 'Please, please don't crack,' " she laughs. "In the process of handling, sometimes the paint on some illustrations does crack and I have learned to just scrape it off and repaint. When I pull up the ground paint, I can put down color in fewer coats. When I am in real trouble, I use a thin layer of white acrylic paint to seal the area and then paint over it. That also seems to work."

She has also discovered that certain pigments are more vulnerable to cracking than others. She avoids using too much raw sienna in mixing colors for that reason. She also avoids too much ultramarine blue as she has had peeling problems in the past with that color.

PALETTE The artist uses Winsor & Newton gouache pigments, which she separates into cool and warm colors. She prefers this brand because of the wide variety of colors offered. Except for black and white, she buys the paint in small tubes. She keeps a large selection of colors on hand—about 40 in all—and often intermixes colors. The result is a rich, slightly grayed palette that characterizes much of her work.

PAINTING

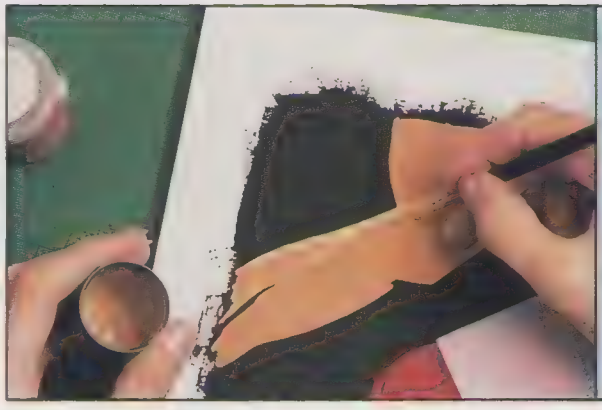
To demonstrate the technique she used in the *Esquire* project, Stahl recreated one of the six illustrations she painted—a close-up view of a bathing suit.

BACKGROUND COLOR The artist's initial step in painting any illustration is to cover the entire board—a Strathmore double-ply illustration board—with the background color. For all the *Esquire* illustrations, she used black because the clothes contained black. "I found out that if I used blue, I couldn't make the shadows in the clothing look black," she says.

She squeezes enough paint to cover the background into a film canister (or other plastic, lidded container of the same size) and adds a small amount of water. When the paint is mixed to a loose, glue-like consistency, she applies it to the board using a one-inch sable brush (Aquarelle). (See Figure 6.) The background color must cover in one coat. Through experience, she has discovered that a second coat of the dark colors she uses for backgrounds causes unwanted streaking. "If it doesn't go down in one coat, I throw the board away," she says. The airtight containers allow her to reuse paint, which usually stays moist for about a month.

Stahl estimates that it takes about an hour for the board to dry thoroughly be-

13 The artist paints a zigzag line where the fleshtone of the leg meets the black shadow to soften the transition and add a different pattern. She uses the same device to separate the highlight on the arm from the fleshtone color.



14 When the fleshtone areas are dry, Stahl paints a highlight across the top of the arm using a lighter version of the color. Later, she adds another zigzag pattern to ease the transition from one tone to the next.

15 To suggest form, Stahl draws flowing lines that delineate the bathing suit from the leg and the arm from the back. The lines reveal anatomy and form as well as add to the pattern.

fore she can add additional pigments. She does not use a hairdryer.

TRANSFERRING THE SKETCH Once the board is dry, the artist lays her tissue or photocopied sketch over it, and traces the lines with pencil. (See Figure 7.) The pressure of the pencil leaves a shiny line on the gouache-covered surface. This becomes her guideline when painting. "Since the background is painted a dark color, you can see the line. I used to put graphite on the back of the sketch, but I couldn't remove it. This method seems to work better."

'THE GIVENS' When deciding what areas to cover first, the artist begins with what she calls "the givens"—fleshtone areas if there are figures, or a particular piece of clothing. In this case, she began with the bathing suit because it had to be accurate. A mixture of grenadine red and orange lake light with a little bit of white proved to be the best combination after she mixed several different reds and tested the color on a separate sheet of paper. (See Figure 8.)

She painted the brightest part of the red first, which is the reverse of what she would normally do, so she could make sure the red will "read" in relationship to the values and colors she chose for the shadow areas of the suit. (See Figure 9.) Six coats of the bright red were needed to cover the black and achieve the flat tone she desired. Paint is applied with round sable brushes (Winsor & Newton)—No. 3 brushes are the most commonly used, but she does keep a range of brushes up to No. 7.

While at first she thought she may need only one shadow color for the suit, it soon became apparent that a second was required. The intermediate shadow color—a dull red—was mixed with some of the red used for the light area, plus raw sienna and spectrum violet. For the violet shadow, she used the intermediate red, spectrum violet, cobalt blue, black and white. The violet shadow covered in three coats, the intermediate red in two. (See Figures 10 and 11.)

LETTERING While it would seem easier to paint the lettering that was on the back of the bathing suit over the shadow colors, Stahl prefers to paint around the lettering because it produces a flat, stenciled effect. While time consuming, she feels the final results are worth the effort.

FLESHTONES Next, Stahl painted the fleshtone areas with a mixture of naples yellow, raw sienna, grenadine red and white. She mixed color in a plastic canister so she would have enough paint to cover all the flesh areas. (See Figure 12.) Four coats of paint were needed.

When painting the leg, the artist decided to paint a zigzag vertical line to separate and soften the transition to the black shadow. "It also adds a different pattern," she explains. (See Figure 13.)

When the fleshtone areas were dry, Stahl painted in a highlight across the top of the arm using a lighter version of the color. (See Figure 14.) While she began with a smooth line, she also switched to a zigzag line on one edge of the highlight. "The straight line just wasn't working," says Stahl. "Visually it was too harsh and I wanted it to be more of a transition to the darker area. My other alternative would be to use more color, but I decided I wanted to keep the illustration to as few colors as possible because the clothing had so much color. I didn't want to have five flesh tones that were competing with it."

Mixing insufficient color for large areas like this can often be a problem. "At times you may have to do just a little touch up and have run out of paint. There is no way you can match it, so you have to mix new colors and paint the whole area again," she laments.

SUGGESTING FORM Because shape and pattern are so important to the overall design of her illustrations, Stahl often suggests form with deceptively simple lines. In this case, she drew flowing lines that delineate the bathing suit from the leg and the arm from the back. The lines are extremely important because they reveal anatomy and form. If removed, the pattern falls apart. (See Figure 15.) The color of these lines is also important, for it expresses light. For the bathing suit line, she chose an intermediate red that helps make the area recede; for the line that separates the legs she chose a flesh tone that suggests intense light. A violet was chosen for the line that separates the arm from the back because it suggests the reflective light of the bathing suit.

WATER Creating a pattern for the splash of water was one of the most challenging aspects of this particular illustration. Although she had the outside perimeters of the water already sketched, she was unsure of how to create convincing color and

16 To solve the complicated design problem presented by the wave, Stahl lays a scrap piece of acetate over the area and tries out several versions with the color she just mixed. "I kept fiddling with it, trying to figure out how to paint something that looked like water," she says.

17 To effectively set off the red of the bathing suit, Stahl chooses a flat pattern of blue for the sky. It is mixed with cobalt, white and a touch of black. Four coats were needed to cover.

shape within the overall pattern.

The initial problem was to determine color. Stahl thought a gray would again help focus attention on the central area of color in the bathing suit. She mixed a combination of the background black, blue from the sky and white. This color was used for the inside color areas of the wave; she gradually added white to this mixture as she painted the outside borders.

When confronted with complicated problems like this, and if she is being "very methodical," Stahl says she lays pieces of scrap acetate over the area she is about to paint and tries out several versions. (See Figure 16.) "I kept fiddling with it, trying to figure out how to paint something that looked like water." Once she had a design on the acetate that she liked, she painted it on the board using the same colors.

SKY Landscape elements—sky, clouds, water—are as frequent in Stahl's work as are figures. In fact, intense blue or dreamy violet skies combined with fluffy white clouds are often used as backdrops for figures. In this project, all but one illustration had a sky, all contained water, and each one was painted differently.

To effectively set off the red of the bathing suit, Stahl chose to paint the sky a flat pattern of blue. She mixed a large batch of the color in a plastic canister using cobalt, white and a touch of black. "I usually mix a little of the ground color—just a touch of it—to almost everything except the brightest colors. It calms the color down and makes everything sit together," says the artist. Four coats of paint were needed to cover the sky. (See Figure 17.)

Stahl finished the illustration in a weekend. The entire job took more than two weeks to complete.

GERMAN RESPONSE When the illustrations were finished, 4 x 5 transparencies were made as a precaution, and the originals were sent to Germany and published in the May, 1989, issue. (See Figure 18.) And so far, the response to the work has been quite positive, especially from the graphic design community. According to Harbers, art directors of his acquaintance were quite taken with the spreads because they rarely see realistic illustration used for fashion. "They were very surprised," says Harbers, "they never saw fashion pages like these, and they liked it very much." ■

—John Fennell

MODE
STRANDGUT
Wenn der Lido zum Laufsteg wird: Die aktuellen Trends in der Bademode und dazu die neuesten Strand-Accessoires zum Urlaubsbeginn
Illustriert von Nancy Stahl

18 Two of the six illustrations Stahl created were used as double page spreads; the remainder were confined to single pages. They appeared in the May 1989 German edition of *Esquire*, a magazine independently published by Heinrich Bauer Publishing, Munich. Her art presents a radical departure from standard fashion articles which traditionally use photography.

The Business of Recruitment Ads

How the creative team at Thompson Recruitment Advertising made the competition look like a bunch of animals.

Scanty budgets and conservative clients are universal beefs among advertising creatives. But for those in recruitment advertising—a field that is growing yet is still somewhat undefined—these concerns are often voiced at a much higher pitch. Companies naturally tend to spend more money—and energy—marketing their products than they do marketing their own career opportunities.

So when US Sprint's Vice President of Employee Relations, Mike Connors, told the creative team at Thompson Recruitment Advertising that he wanted to push the envelope—to develop creative that was different than anything he had seen before, creative that made his phone ring, that made the competition crazy, and that won awards—mouths dropped open.

Says Michelle Skerry, Associate Creative Director/Writer, "We had developed spec creative for the pitch. And in an open competition among five or six other agencies, we won the business based on the ideas presented at this first client meeting." (The group's parent company, J. Walter Thompson, handles the product advertising for US Sprint.) "Afterward, we planned a meeting with the client to go over the work and see what they wanted to run, what they didn't and what additional work was necessary." But US Sprint's new directive, Skerry recalls, was completely unexpected.

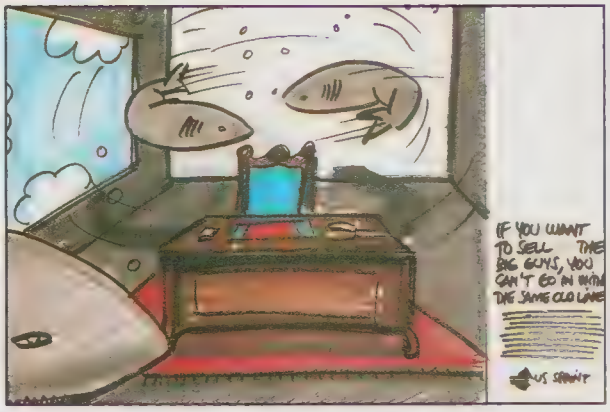
It's A Jungle This herd of electronically composed hippos was assembled from photos of only two animals by the creative team at Thompson Recruitment Advertising. The office corridor featuring the unfortunate employee was shot separately.

MAPPING OUT AD STRATEGIES

How do you attract the best and the brightest people to come to work for you? You write and design an ad that breaks through the visual and verbal clutter of the usual recruitment approaches. You make it distinctive; you ensure that it targets the right audience; and ultimately, you must simply do a better job than your major competitors do. These were the objectives the creative team grappled with during early strategy sessions.

Since the break up of AT&T, the competition for business, as well as for the best employees, has been frenzied. So from the client's perspective, the ad's primary objective was to help hire the top sales people away from the competition, because they needed people who understood the unique nature of the telecommunications industry. Sprint wanted its advertising to communicate the company's strengths to those people.

ARTICULATING STRENGTHS By exploring the unique strengths of their client's organization, the group isolated certain key facts. In less than two years, US Sprint officials reported that the company had grown faster than any other long distance telephone company in America. And at that time they were gearing up to be the


IF YOU WANT TO SELL THE BIG GUYS, YOU CAN'T GO IN WITH THE SAME OLD LINE
US SPRINT
If you want to be the fastest in the jungle, you can't sit around with the fat cats.
U.S. Sprint.

1 US Sprint's recruitment ad was designed to hire top sales people away from the competition. These ideas, first presented as spec creative in the competition for the account, were presented by the creative team at Thompson Recruitment Advertising. The client was immediately drawn to the animal imagery and the humor, especially to the hippos, which were big and awkward, a sharp contrast to US Sprint's own self-image as aggressive, non-bureaucratic and competitive.

The biggest problem in working for a good old company is that it's so hard getting them to budge.
Sure it seems like a good idea. Working for the biggest, oldest, most established.
But think about it.
A huge, well-entrenched company has a lot invested in the status quo. The ability to move quickly is just not its strong suit. And in a rapidly changing marketplace like ours that's a real problem.
The best career opportunities always come within a company that is growing like crazy.
Like US Sprint. Since we first started business July 1, 1986, we have grown faster than all the long distance telephone companies in America. Combined. In addition, our data communications counterpart, Telenet, has become the largest public data network in the world.
Part of this success is due to the quality of our technology. We have the nation's only 100 percent fiber-optic network. Not AT&T. Not MCI. Just us.
And part of it is due to the quality of our people. We look for innovative, enthusiastic individuals, and we give them everything they need to achieve their professional best.
If you're tired of feeling stuck behind the company you keep, talk with US Sprint. Just think what our kind of energized, supportive environment can do for your goals.
Not to mention your view.
US Sprint
TALK WITH THE BEST.

2 This color marker comp, created by Los Angeles artist George Francuch, takes the hippo idea one step further: The animals are standing in an executive-style corridor, blocking the progress of a young executive. The client approved the comp as well as the copy approach, and the creative team set out to make it a reality.

only 100 percent fiber optic network (a goal they have now reached).

Aside from these obvious, marketable facts, however, the group felt US Sprint's reputation in the industry as a relatively new firm was a critical springboard for recruitment strategies. Because of its growth in such a short period, the firm's corporate culture was less rigidly structured, without all the layers of bureaucracy others have. It followed, then, that the young, aggressive US Sprint could offer a more dynamic environment for up-and-comers, the group reasoned.

Armed with this menu of benefits, the creative team started comping up ideas. "We were positioning US Sprint as a high-energy, fast-paced company that was experiencing phenomenal growth in the three short years of its life. This translates into a great career opportunity for high-achievers. This kind of growth environment creates unparalleled opportunities for fast advancement," Creative Director Gary Holme notes.

As strong as Sprint's story was, however, the team felt that their best strategy was not to talk directly about Sprint and its positives. Since the real objective was to hire people away from the competition, they felt the best method was to take a creative strategy that met the competition head-on.

"As part of the original creative presentation, we had already developed a series of ads that positioned US Sprint directly against the competition. We used lions to refer to the 'fat cats,' penguins to refer to the companies that 'couldn't even get off the ground,' and hippos to refer to companies which were so big and awkward that they couldn't move very fast," says Holme. (See Figure 1.)

Because the client liked the animal imagery, Skerry and Art Director Ed St. George decided to push the idea even further. "We put the animals in a real-life corporate setting. We wanted to emphasize the concept that the animals were the other employers, and that—because of their inherent nature—they would not be a good career choice." In poking fun at the competition, they decided humor could be used as a tool in changing attitudes about something, as well as to attack the competition in an inoffensive way.

WHY HIPPOS?

Of all the animals, the client was most enamored with the hippos. In addition to being funny looking, they also seemed to

best represent the exact opposite of the way in which US Sprint wanted to be perceived—as a fast-moving, high-energy company. "And we thought that if we could pull it off visually, with photography, it would be the most dramatic and impactful," says Skerry. Even though illustration may have proved less expensive, the team felt the impact could not have been as dramatic. "You can make an illustration do anything. You can create a room filled with hippos, give them wings and have them eating cotton candy. It doesn't matter. But photography was entirely different. It was reality," the associate creative director says.

HAMMERING OUT THE DETAILS Start-up questions were obvious but challenging: How many hippos? Where could they be found quickly and inexpensively? And perhaps more important, who was the best photographer for the job? But the team did not want to wait for the answers. "We took a leap of faith and decided to first design the ad the best we could make it and trust that if the client bought it, we would somehow be able to find a way to make it work," says Skerry. (See Figure 2.)

In the marker comp, created by a local free-lance comp illustrator, a herd of hippos is depicted standing in an executive-style corridor, blocking the progress of a young executive. The client approved the comp and the copy approach, so the team set about choosing a photographer and planning the shoot. The project would require two separate shoots: various location shots of the hippos, and a studio shot of the corporate corridor.

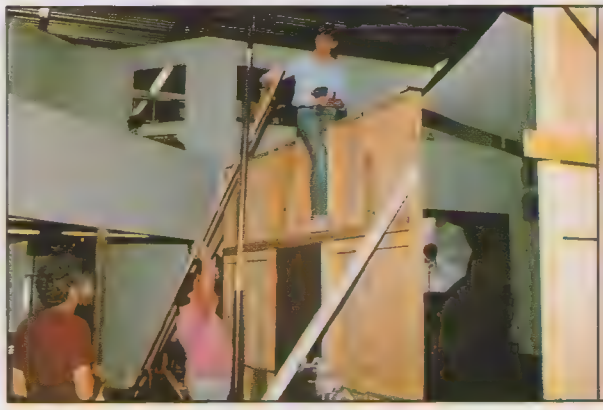
THE PHOTOGRAPHY

Gary Holme and Ed St. George knew they had to choose a photographer with a sense of humor, and one who had demonstrated experience with animals. Los Angeles-based advertising photographer Jay P. Morgan was the first and only choice. "Jay brings a certain sense of humor and wonderment to his shots. We saw from his book that he was good with animals, people, kids, everything. Plus all his shoots were very complicated, but appeared deceptively simple," says St. George.

While Morgan, Holme and St. George attempted to make the corporate corridor in the comp a reality on set in Morgan's studio, Morgan engaged the services of an animal trainer to call all zoos from Florida to Hawaii to locate the hippos.

HIPPO SCOUTING "At first we found this hippo trainer who belonged to some circus

3 Setwell Building worked closely with photographer Jay P. Morgan and the creatives at Thompson to create a life-like set at Morgan's studio, using the comp for direction. Every decision was based on how the hippo photo, once it was digitally composed with the corridor shot, would "visually" fit.



4 Camera heights and the distance from the subject to the camera had to be carefully measured. Polaroids were taken frequently during the building process. Such measurements would be crucial when it came time for the hippo shoot.

5 A painted cityscape backdrop was rented and placed behind the executive office window at the end of the corridor to enhance the scene's believability. "We wanted a set that wasn't too busy so it wouldn't take attention away from the hippos," says Morgan.

6 Matching the lighting in each photo was crucial. To accomplish this, the same overhead light source was used at each shooting session. The set-up for the office shot is shown here.

7 The photographer and the set building team consciously planned for the walls to be closer together at the back of the set than at its front in order to enhance the forced perspective. The added perspective gave depth to the finished shot.

8 The hippo shot had to be dropped into the corridor shot so positioning on the set was critical. The flying contents of the briefcase were hot-glued together in several "chunks" which were later assembled into a whole, says Carrie Miller, production manager. Miller was particularly conscious of the team's budget. "My biggest concern was whether or not I'd be hearing any art directors telling me, after the fact, 'We'll Scitex it out later!'" she adds.

9 At the last minute, just a few days prior to the shoot, the client requested a minority version of the ad, and additional talent was brought in. The planned one-half day shoot turned into a full day because now two different shots had to be taken.

that would regularly travel around the world. So the idea was to catch him and his hippos when they were stateside. But as luck would have it, he got busted in Europe and his hippos were impounded," quips St. George.

The group finally located a zoo in Wichita, Kan., that had accommodated a photographer on a previous occasion. The zoo granted permission, but also expressed concern about the hippos' well-being during the shoot, since they are by nature shy animals. But they were willing to allow the crew access to two female hippos for two days. St. George and Carrie Miller, production manager, planned on shooting hippos in groups of two and cloning a maximum of four additional transparencies digitally to create the herd of hippos. In this way, costs for cloning and color retouching would be kept to a minimum on the color electronic prepress system.

BUILDING AND LIGHTING THE SET Meanwhile, Setwell Building (conveniently run by Morgan's own father) was busy constructing all the sets from scratch, based on the sketch. (See Figures 3 through 5.) "We wanted a set that wasn't too busy so it wouldn't take attention away from the hippos," says Morgan.

Lighting was also critical, because the set and the hippos' pen had to coordinate. "We chose an overhead source to look like the hall light on the set. This was achievable in the hippos' pen because we could hang lighting over their heads and cover the area they would be moving around in—and at the same time not bother the hippos," recalls St. George. (See Figure 6.)

PERSPECTIVE Camera heights and distances from the subject to the lens all had to be measured and noted on the set so they could match the hippos' pen.

"We purposely planned the walls to be closer together at the back of the set than in front to enhance the forced perspective, and to give more depth to the photography," says Morgan. Polaroids were then taken of the set to compare with the hippo Polaroids so that, visually, everything matched. (See Figure 7.) Other considerations for the set included ensuring that the hippos' color would not get lost against the set and that the hall width was large enough to accommodate a herd of hippos.

As final set decisions were being made, the talent review process was also underway. Morgan selected three models for the Thompson team to review. With the on-set shoot only a few days off, however, the cli-

ent decided to add a minority version of the shoot—using the same set but different talent. So the planned one-half day shoot became a full day.

The talent for both ads had to be placed exactly in the same place, especially since the same hippo group was planned to be dropped into both ads, says Miller. (See Figures 8 and 9.)

Unlike her colleagues in the creative department at Thompson, the production manager saw the creation of this ad very much from the price control, methods and scheduling perspective. So as the hippo-sites were being tracked down, for example, Miller was conservative about cost estimating. "The possibility for changes within the shoot were great, especially with the hippos' reactions to camera flashes and so on. So my biggest concern was whether or not I'd be hearing any art directors telling me, after the fact, 'We'll Scitex it out later!' " Miller, as it turned out, was glad that she did not budge from her initial estimate.

THE ZOO SHOOT

Before actual shooting ever began, the photographer, assistants, animal trainer and the Thompson Recruitment team arrived at the zoo the afternoon before to set up lighting in the enclosed pen. These pens house the hippos during the winter months. (See Figure 10.)

"We were afraid the hippos would freak out from the flash and pop of the Polaroids and the curator of the zoo would have us packed and out of there. But when we finally got set up and started shooting, the hippos couldn't have cared less about the lights," says St. George.

But the photographer stresses how important patience is when working with animals. "Our animal trainer, Steve Berens, from Animals of Distinction, was the key to most of our success." Morgan enlisted Berens' aid since the hippos are not trained animals, and the group was concerned about how they would get the hippos to open their mouths.

HELPFUL HIPPO TIPS To get the hippos to open their mouths when necessary, Berens tied alfalfa at the end of a piece of string, secured it onto a pole and held it out in front of the hippos' noses. As they would open their mouths, he threw them half of an apple. Says Morgan: "It worked nicely through this simple reinforced behavior." (See Figure 11.)

The group also learned that hippos need to be hosed down quite often as they dry

10 The hippo shoot took place at a Wichita, Kan. zoo in an enclosed pen area. (The pen normally houses the hippos during the winter months but provided the kind of containment the creative team required.) Two female hippos were made available, and the group had two days to get the shots they needed. The group arrived a day ahead of time to set up the overhead lighting to match the studio shot.

11 Trainer Steve Berens was invited to help engage the hippos' cooperation. To get them to open their mouths when necessary, he held a pole with alfalfa tied to the end of a string. Placed in front of the hippos' noses, it produced the desired effect and Berens threw in one-half of an apple, thereby reinforcing the behavior.

12 Morgan wanted to shoot the hippos as a pair, and hippos do like to stand very close to one another. But only one would assume the position needed at any one time. So additional post-production cloning to pair up single hippo shots was necessary.

13 Another significant problem that would require retouching: the animals' discolored teeth and massive purple gums. However, after three rounds of color correction, the lips became too "lipstick pink" and were actually brought back closer to their original state. Battle scars on the animals' hides were also removed.

14 The group spent one-half day on the preshoot activities and two full days shooting. A contingency day was built into the schedule and approved by the zoo, but the group did not need to use it. Still, Production Manager Miller saw the post-production budget slowly dwindling.

15 Some 350 sheets of film had to be edited, and Art Director Ed St. George spent days enlarging, reducing and flopping cropped and manipulated color photocopies to assemble the final collaged color photocopy comp. St George says that only with the proper perspective would the ad be believable.

out quickly. "We did not want them wet, so we took as many shots as we could between waterings. But before long, we noticed huge red splotches all over their bodies." The trainer informed the group the splotches were called "blood sweat." "So we figured wet would be easier to retouch than blood sweat," says Morgan.

Yet another unexpected problem arose with the hippo shoot. Hippos like to stand very close together and only one would assume the position needed at any one time. So additional post-production stripping, to pair up single hippos would be necessary. (See Figure 12.) Also, the animals' large, discolored teeth, set between massive purple gums, would have to be digitally retouched. (See Figure 13.) It was at that juncture in the shoot, says Carrie Miller, "when I heard Ed mutter the fatal words—'We'll have to Scitex it out later!' "

Miller saw the post-production budget slowly dwindling. In total, the group spent one-half day on the preshoot and two full days shooting on site. (See Figure 14.)

EDITING THE FILM

Three-hundred and fifty sheets of film later, St. George found himself hunched over three light boxes tracing hippos with a fine line pen. (See Figure 15.) Perspective was 99 percent of the shot, says St. George, because only the proper perspective would make the ad truly believeable. So almost 30 pages of enlarged, reduced and flopped crops and manipulated color photocopies were created to achieve the final collaged color photocopy. Once the composite collage was approved, the film was sent for color separations—one 4 x 5 transparency from the talent/studio shot, and eight 2¼-inch hippo shots—and "patch" Matchprint proofs were reviewed. Once the color approval stage was completed, the eight hippo shots and the studio shot would be digitally composed on a Crosfield 865, a digital, color pagination system. (See Figure 16.)

COMPOSITION OF MAIN VISUAL

The "patch" color proofs were pasted to a board with a tissue overlay, and Miller noted areas for merging images together, color retouching and manipulation. Since the post-production plans had changed considerably, Miller called Bruce Arlen from Alan Litho for a meeting to discuss methods of execution and cost. "We now found ourselves with ten transparencies instead of four and more than a minimum

of system work," says Miller. The system work was estimated in groups to allow the art director to evaluate each section, especially since individual corrections had to be made in relation to others—eyes to lips, hair to skin.

To save Matchprint and film costs, the group decided that the hippo transparencies should be merged into position and composed first, then dropped into the main set transparency. (See Figure 17.) The first composed proof was marked up and was sent back for corrections. The lips needed softening, and the eyes whitening, for example. The color correction and retouching process continued for another four passes—still more pink laid around the lips, and the grossly stained teeth were given a more ivory luster, for example. Some battle scars were made magically invisible on the rough hides. As work progressed, the lips became too "lipstick pink," so they were changed back once again. Says Miller: "When doing a job with a large amount of system work, it pays to store all corrections to disk. If you do not like a particular solution to a correction, you can easily retrieve it." The images were stored on disk for output at different line and size settings for future use at significant savings.

On the fourth and final Matchprint pass, Miller says she felt a real sense of accomplishment: "We had taken a concept, pitched it, sold it to a new client and it's an ad which deviates madly from the history of recruitment advertising, utilizing the most sophisticated equipment."

Of course, the most satisfying moment for the group was the first comment made by an onlooker: "Gee, how did you get all those hippos in that room?" (See Figure 18.)

RECRUITMENT FIELD IS CHANGING

The competition among major employers for skilled, educated professionals continues to be fierce. So creatives in recruitment are hopeful that with this increased competition will come a growing willingness on the part of major employers to apply the same kind of creative and media budgets from product advertising to recruitment. In the near future, experts forecast that recruitment advertising should start to move closer and closer to corporate image advertising in order to more clearly define the nature and character of the company for its future executives. ■

—Nancy Aldrich-Ruenzel

16 Before the shot of the studio and the hippo shots were digitally composed on a Crosfield color electronic system, "patch" color proofs (Matchprints) were evaluated. The studio/talent shot shown here did not require any retouching.

17 The eight hippo transparencies were merged into position on the Crosfield system and then, after positioning was approved, the composite of the hippos was dropped into the main visual of the set. This saved on Matchprint and film costs.

18 The creative team was pleased with the final ad. "We had taken a concept, pitched it, sold it to a new client and it's an ad which deviates madly from the history of recruitment advertising, utilizing the most sophisticated equipment," says Miller.

The Corporate Stationery System

See how designers develop a comprehensive stationery system for Time, Inc. Magazines.

Despite their obvious similarities, personal letterhead design and corporate stationery system design are two different design categories. Certainly both serve as important marketing communications tools for the people and companies they represent, yet meeting sophisticated procurement and budget needs are not usually the primary concerns of a graphic designer creating an individual letterhead program for a small merchant. Corporate systems design, then, is much broader in scope and must address the needs of hundreds of people working in a variety of settings—executive, administrative, financial and in the field.

A strong case in point is the recent project for Time Inc.'s newly incorporated Magazine Group, which last year became a wholly-owned subsidiary called The Time Inc. Magazine Company. (See Figure 1.) The reason for incorporating, as Time Inc. Magazines' CEO, Reginald Brack explains, was to "surface the identity, and create awareness, of a group that ranks among the top magazine publishing powerhouses in the world today."

THE PROJECT

Among the various activities needed to implement Brack's marketing strategy, a new stationery system was needed—a seemingly not-so-complicated task. This task fell on the shoulders of Ken Carson, Time Inc. Magazines' print and promotion purchasing director. He realized that the issue was much broader than simply placing the existing Time Inc. Magazines' logo on the stationery items of its seven magazines—*Time*, *Life*, *Fortune*, *People*, *Money*, *Sports Illustrated*, and *Sports Illustrated for Kids*. (See Figure 2.)

The issue was to visually translate Brack's vision on stationery, creating a new master design system for the company and its magazines that would clearly express the scope of the organization. Says Carson: "We had several key objectives, but the most important were to surface the identity of Time Inc. Magazines while at the same time to protect the individuality of each of our magazines."

To accomplish this, Time Inc. Magazines called on Q. Malandrino and his staff at New York City-based MARQ Design & Communications, Inc., who realized the importance of the task from an image standpoint, as well as the very significant cost-savings potential such a program could have.

FEASIBILITY STUDY

As the first step, an audit of every piece of stationery was conducted. Each piece was identified and categorized, and large boards were prepared with a collection of the various stationery items. (See Figure 3.) The audit, conducted throughout the company as well as within each magazine, uncovered a wide variety of layouts, formats, sizes, colors, paper stocks, printing processes, and a wide range of uses of the

The Design Challenge One of the design challenges was to design a format that would consistently accommodate the various magazines' logos in the same manner—regardless of its individual design configuration (long, short, light, dark, and so on.)

magazines' well-known logotypes. "Each piece of stationery was individually well-designed" says Malandrino, MARQ's president and creative director, "but seen together there was a hodgepodge of styles, since each magazine had pursued a proprietary 'look.'" MARQ also found that, in some instances, some executives were determining the design of their own area's stationery.

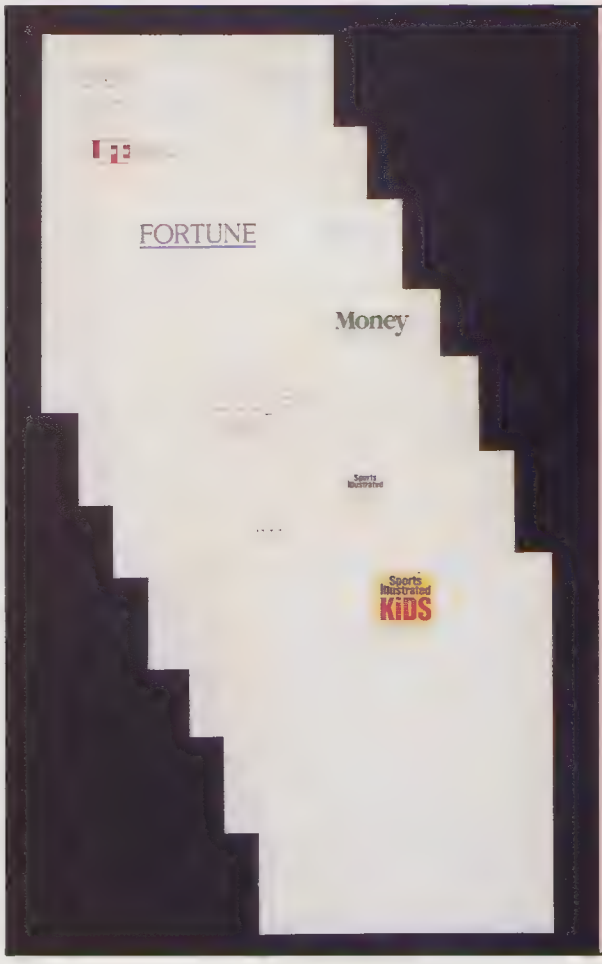
Concurrently, MARQ and the client's liaisons interviewed 24 executives within the company and its magazines to learn everything about stationery usage, preferences, company traditions, as well as such operational details as ordering, procurement, distribution, and the type of office equipment the stationery was run on.

THE QUESTIONNAIRE Although MARQ developed a specific questionnaire, these informal interviews were intentionally kept on a "conversational" level, in order to gather the information in the broadest way. (See Figure 4.) "All executives we talked to were very enthusiastic about the program and very cooperative in terms of sharing with us their needs in the area of stationery," says Leonard Stateman, MARQ's marketing director.

From the audit and the interviews, the project team was able to precisely understand the enormous costs this chaotic situation entailed as well as the extremely fragmented image that was projected as a result.

MARQ prepared a comprehensive summary report, which presented all the findings and provided specific recommendations. Among them, the designers recommended consolidating all the various stationery items into 11 standard pieces that would be used throughout the organization. (See Figure 5.) In addition, MARQ recommended the structure by which the magazines' logos and the company logo

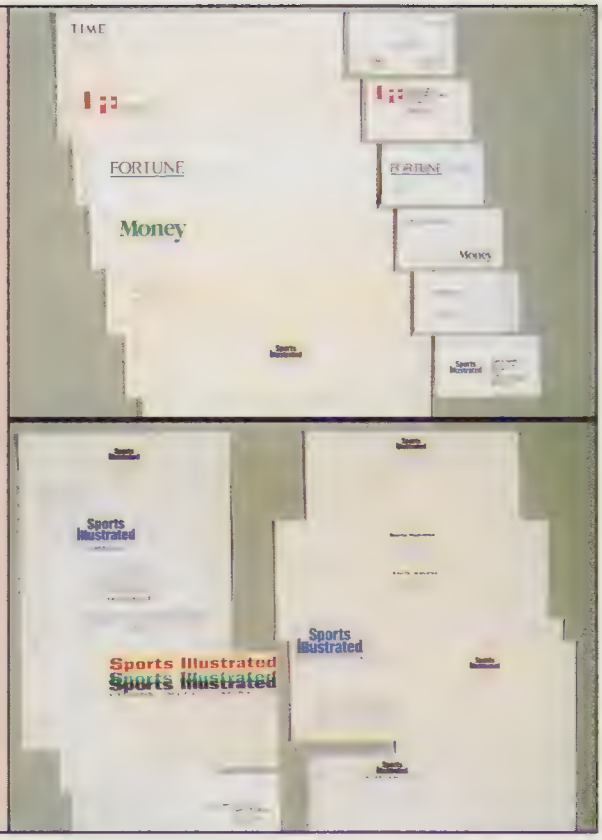
1 The newly formed Time Inc. Magazines (the name of "The Time Inc. Magazine Company") was the parent organization of a number of major magazines.



2 These are the original magazines' letterheads. Because of the need to insert the "Time Inc. Magazines" logo, there was an opportunity to re-design the entire stationery system and create a "family look" among all magazines. The company's print and promotion director, Ken Carson, says, "We had several key objectives, but the most important were to surface the identity of Time Inc. Magazines while at the same time to protect the individuality of each of our magazines." To accomplish this, Carson contacted Q. Malandrino at MARQ in New York City and communicated the company's needs.

Photos by MARQ

3 Although individually well-designed, overall, the individual magazines' stationery items were a hodgepodge of style, sizes, logo treatments and color combinations. Paper stocks and paper colors differed as well. Even styles within a magazine, as demonstrated by the *Sports Illustrated* system below, were not coordinated. Malandrino immediately realized how important coordination of the company's stationery system was, both from an identity and cost-savings standpoint.



4 MARQ developed a questionnaire that was given to Time Inc. Magazine executives during informal interview sessions. From these sessions, the designers extricated a wealth of information. "All executives we talked to were very enthusiastic about the program and very cooperative in terms of sharing with us their needs in the area of stationery," says Leonard Stateman, MARQ's marketing director.

Questionnaire

1. *In general terms, what are your magazine's stationery needs?*
2. *What primarily do you use your stationery for? Sales? Internal communications? General correspondence?*
3. *Do you feel your current stationery items serve your purposes? How would you change them? What items would you add or delete? Has your administrative assistant ever mentioned specific needs or problems?*
4. *How is your magazine organized in terms of departments, divisions, subsidiaries? Do any of these entities need to use stationery items with the department's name on them?*
5. *Are you happy with the design of your current stationery? Has anybody ever commented on it? Clients? Suppliers? Employees? What have they said?*
6. *How is correspondence generated? Word processor? Typewriter? Do you type it yourself? Your assistant? Do you follow any particular typing format?*
7. *Do you have/use personalized stationery? What items? Are they important to you?*
8. *Do you do mailings? Or mostly individual letters?*
9. *Are your letters usually one page? Two pages? Several pages? Do you have a printed second sheet? If not, what paper do you use for second sheets?*
10. *How does the ordering/procurement procedure work?*

were to be presented in relation to each other—where the magazine's logo would be visually dominant while at the same time providing a clear linkage to the Time Inc. Magazines' logo.

MARQ presented the summary report to management in written as well as in slide form and, after a comprehensive discussion of the issues, all the parameters related to the project were agreed upon.

THE DESIGN PROCESS

The task was to develop a design structure that would consistently feature the various elements of identification (the magazines' logos and the Time Inc. Magazines logo), as well as the various informational elements (department name, address, telephone and fax number, executive name and title).

Immediately, three major design challenges surfaced: 1) to develop size and positioning relationships for the magazines' logos and the Time Inc. Magazines' logo according to the desired marketing objectives; 2) to design a consistent format even though the main elements of the stationery (the magazines' logos) were so different from each other—long, short, deep, shallow, light, dark, logotypes vs. shapes, etc.; and 3) to design a format that would work consistently on differently-sized pieces, ranging from an 8½ x 11-inch letterhead to a 2 x 3½-inch business card.

DESIGN EXPLORATION

First, since primary emphasis on all stationery items had to be given to the magazines' logos in relation to the "Time Inc. Magazines" logo, all of them were sized in such a way so as to be the same "visual weight"—regardless of their shape, form, and color combination, and a board with all re-sized logos was prepared. In this way, the designers were able to reduce or enlarge all logos at the same time (according to the size needed for each stationery item and to the particular layout they were exploring—while maintaining the same size relationship between them.

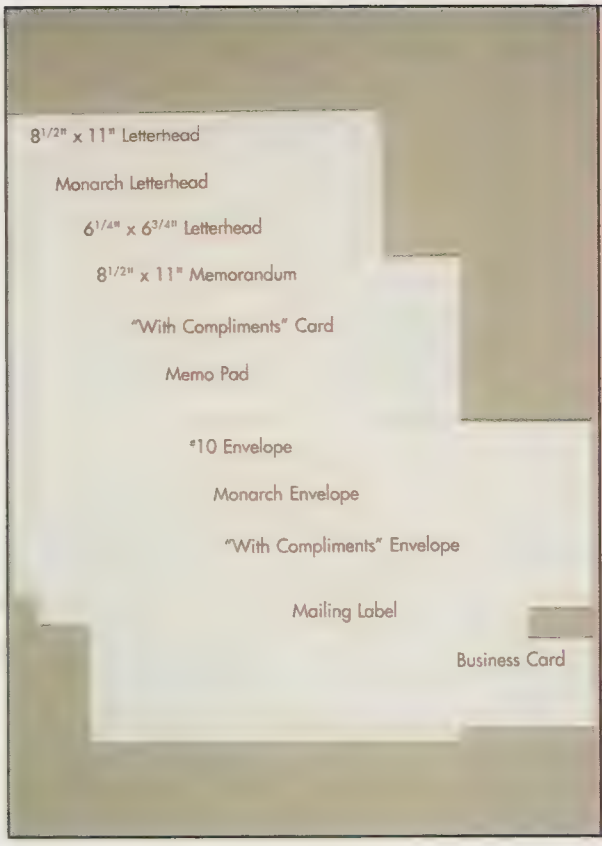
ADDRESS BLOCKS Second, an address/phone/fax "block" was typeset—to allow for effective layout exploration by knowing how much space this information would take. As Malandrino says: "In this initial setting of type, we set the real street address of the client. The real problem is to make sure a long name fits on a business card. Many designers typeset the words

"Executive Name" and "Executive Title"; we find this misleading because in real life you may encounter a name that is longer than 14 characters. We use the name 'Christopher M. Zeletrineann,' because it is just about the longest name you will ever find. This way, you are fairly sure not to have surprises when the client gives you the real names," adds Malandrino. "The title is not a problem; you can always break it up into two lines if you really need to." No specific typeface was chosen at this time, aside from making sure a face with an "average" x-height was selected. "We decided to postpone the choice of typography until we had the final layouts," says Malandrino, "because we felt the choice would be best made according to whether the address copy would fall next to the Time Inc. Magazines' logo—which is a serif face."

RULING BASE BOARDS Third, 11 boards were ruled—one for each of the 11 stationery items—and all elements (the eight logos in several sizes and the address block) were cut out, lightly spray-glued, and placed on a Strathmore Grandee sheet (this sheet does not allow the paper to stick too much and does not absorb too much of the spray glue.) In this way, the designers had "base boards" for quickly applying the already-cut elements and were able to "play" with various layout options.

"This is a very effective method for doing stationery exploration, even faster than a Macintosh," says Malandrino. "You press down the pre-glued elements where you want to, run to the copier, make a copy, go back to your desk, pull them up, change their position, and copy the board again. This does two things: a) you can quickly explore many options, especially when you have to make sure the layout works with different logos as in this case, and b) you have a hard copy of every layout you develop, so that you can use them in the presentation of the design exploration to the client."

GENERIC LETTER Fourth, a generic typewritten letter was prepared so that the designers could incorporate it into their designs from the start. "We use this letter all the time for these purposes," says Malandrino. "It is comprised of three average-sized paragraphs, and it says something about stationery in general. We have this letter in the computer, so that we only have to change margins, the name of client, and the date." (See Figure 6.)



5 MARQ recommended consolidating all stationery items into 11 standard pieces to be used throughout the Magazine Company and its various magazines. Standardizing the pieces of the system would help to reduce the organization's costs. In addition, MARQ recommended a structure in which each magazines' logo would be visually dominant yet clearly linked to the Time Inc. Magazines' logo. MARQ prepared a final report for management which included these needs, and after a discussion of the issues, the project went forward.

May 1, 1989

Mr John B. Jones
Vice President—Marketing
ABC Corporation
777 Main Street
Building 1
Anywhere, XX 77711-9865

Dear Mr. Jones.

The communication potential of a letter goes beyond its word content. Just as the frame of a picture can complement or detract from the picture itself, so the letterhead design plays its role at this personal communication level. Choice of typewriter face, paper stock and typing format also make a large contribution to the overall impression of the reader

A well-designed letterhead should avoid the promotional features which might be necessary in other parts of the identity program. The design of a letterhead, like the typewritten message it carries, should reflect the core principles of the organization.

This typing format has been specifically designed to complement ABC Corporation's newly designed stationery items. It is somewhat of a departure from the usual format, implying that the organization is more progressive in its thinking and is more contemporary, without sacrificing a feeling of organization and stature. We strongly recommend adopting this format because of its ease of application and because it will lend consistency to all typewritten communications.

Cordially.

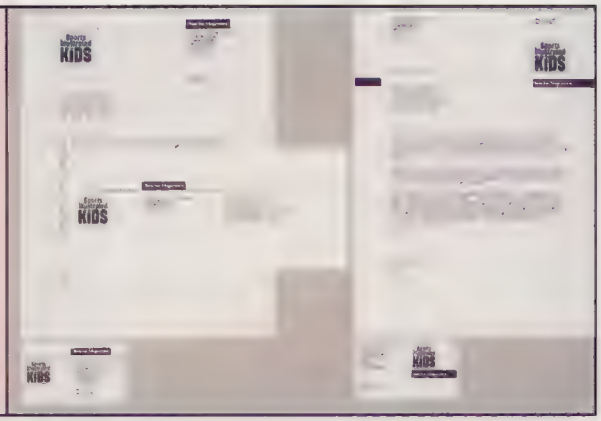
Executive Name
Executive Title

EN hs
Encl.

cc: B. Smith

6 The MARQ team tries to foresee every eventuality, including how the completed letterhead would be used. A generic typewritten letter was generated so the designers could see what their designs would look like in use. "Think of it," says Malandrino. "No one ever sees an untyped letterhead. The typewritten message has to 'marry' the layout." MARQ keeps a copy of this letter on its computers and frequently uses it as part of stationery projects.

7 These are just a few of the many exploratory layouts MARQ developed. The designers followed an interesting method for quickly exploring different layouts. After creating a "base board" with spray mount, components were lightly tacked on in position, photocopied, rearranged, and photocopied again.



"The design exploration was a fairly lengthy process. "It was very difficult. For example, we would start developing a layout working with the *Sports Illustrated for Kids'* logo—because it is the deepest. That layout seemed to work well on letterhead; we'd try to translate it onto the business card and it wouldn't work; or we realized that it wouldn't work on envelopes because the meter stamp is so wide. So we had to start over again. Or we'd develop a layout that would work with one magazine throughout the 11 pieces; we would then try to apply the same format to the other magazines and we would discover

8 Although endless combinations were explored on sheets of Strathmore Grandee (as explained in the preceding figure), MARQ elected to present four final design directions to the client. The directions ranged from "conservative" to "innovative" in order to offer Time Inc. Magazines' management choices that would address the perceived "personality" of the company.

that it wouldn't work with the *Fortune* logo because it is so long and skinny. We tried for quite awhile, until we had a number of layouts/formats that would work consistently throughout all 11 pieces and for all the seven magazines and the parent company," says Malandrino.

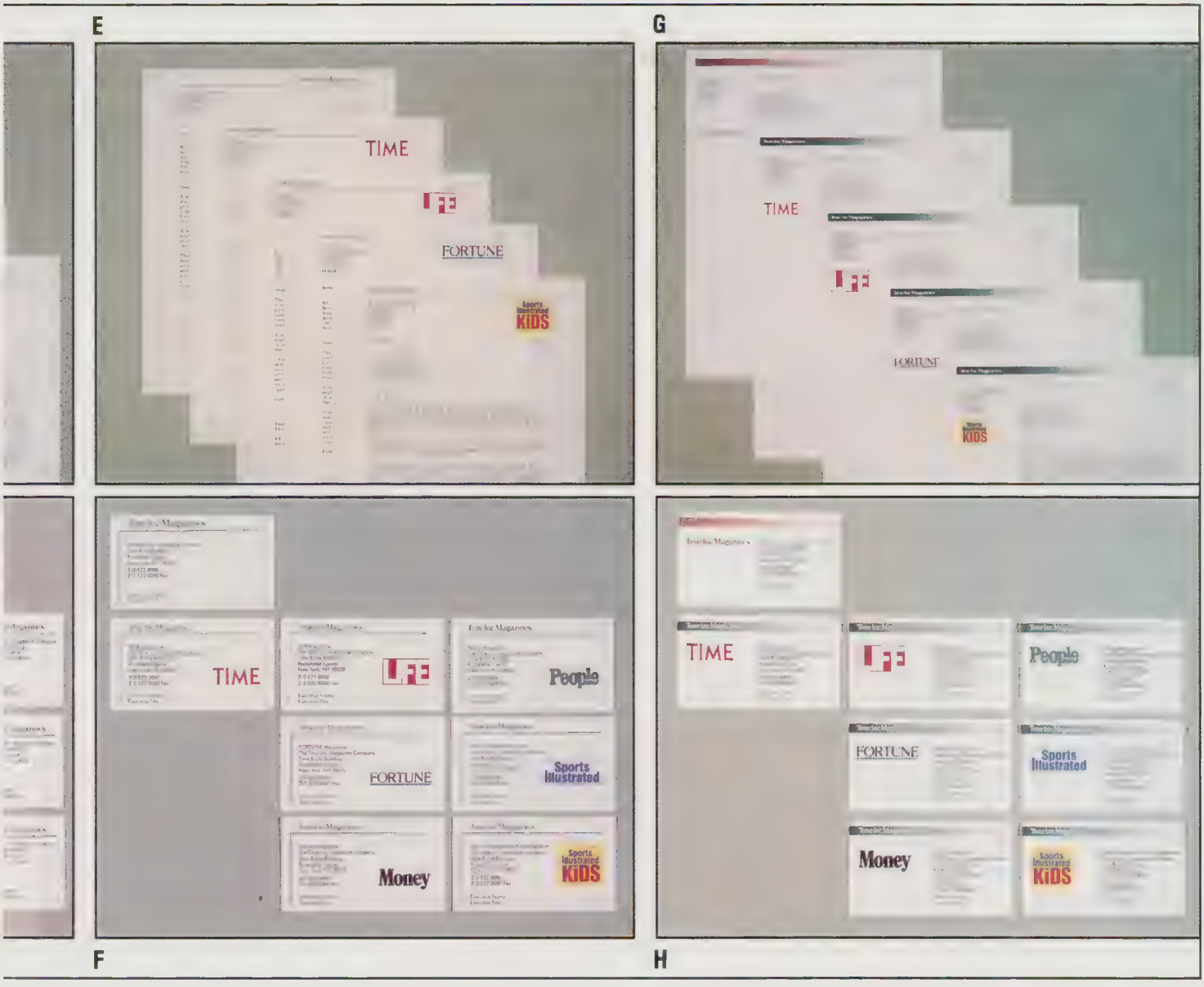
After discussing the exploratory layouts with the client, a design refinement phase followed in which MARQ translated the client's feedback into four final design directions. (See Figure 7.) Since stationery has such a direct correlation with the style of a corporation, the designers made sure that the four directions ranged from "conservative" to "innovative," in order to offer Time Inc. Magazines' management with choices that would address the perceived "personality" of the company. (See Figure 8.)

PAPER STOCK SELECTION

MARQ developed three sets of options; each set included the paper suggested for executive and for general use. "We provided them with choices," says Malandrino, "One-hundred percent vs. 25 percent cotton content, bright white vs. ivory vs. light gray, as well as wove vs. laid finish." The three options were presented, each in a separate pocket folder; each folder contained 11 samples of that paper stock cut to the respective 11 stationery items' size. Each item carried on one edge the description of the item and the paper name and weight. This way, two different sheets could be compared by holding them at the same time. "It is very important for executives to touch and feel the real paper," says Malandrino.

TYPOGRAPHY EXPLORATION

A main consideration was that the typeface selected be available in a variety of cuts and weights to provide a variety of



choices. The typography of one of the four final design directions was Times Roman, one was Century, and two were Futura. "We chose Times and Century because they are among the most classical serifs, and we chose Futura because it is so sharp and has more character than other sans serifs," says Malandrino.

TYPING FORMATS In all design system options, MARQ kept into consideration the typing format. "It's extremely important." says Malandrino. "Think of it; nobody ever sees an untyped letterhead. And there's nothing worse—yet it happens all the time—than seeing a nicely designed and printed stationery ruined by the typed message on it — out of alignment, with margins too wide, etc. The typewritten message has to 'marry' the layout. And those little printed dots that some designers keep using to tell the typist where to start typing are so unsightly when (as is usually the case) the typist doesn't hit them right on."

MARQ used a simpler and easier-to-follow method: "In all our layouts, we had alignment points given by the careful

9 Time Inc. management chose the "conservative" direction. These are the final printed pieces; the format works well across the spectrum of the various magazines as well as being consistent across the various stationery items. Malandrino felt the management made the right choice, saying it was "a choice made on the basis of the design (that) reflects best who you are as an organization."

placement of the logo and the address block," says Malandrino. "The typist simply aligns the typed message with the printed elements above the message itself. Especially in this era of word processors, the margins need to be set once and that's it; alignment is automatic."

COLOR COMPS The comps were made on the actual paper stock, using rub-down color transfers. In order to have the typewritten letter on the comp, MARQ adjusted the margins (according to the particular layout) of the letter stored in the computer and ran a blank letterhead through a letter-quality printer. Logos and addresses, then, were simply rubbed down in position. The typed address on envelopes was a black rub-down transfer.

FINAL DECISIONS

The four final design directions, in the color comp form, were presented to Time Inc. Magazines' management. CEO Brack preferred the design shown in Figure 8A. But he also liked the design shown in Figure 8C. "That's us 10 years from now," he said.

The pros and cons of each design were then discussed with Brack and his senior management and, after a short series of questions and answers related to the details of the design solutions, Brack's feeling was shared by all. "I couldn't believe it," says Malandrino. "We were prepared for the usual dissecting of a design and related slew of suggested modifications. Brack made the right choice: a choice made on the basis of the design you think reflects best who you are as an organization." (See Figure 9.)

Final decisions were made for all components. Futura was chosen for the address block because it provided a strong contrast with the Time Inc. Magazine's serif logotype positioned immediately above it, allowing the logotype to be visually more prominent. Interestingly, all 11 pieces (despite their relatively different sizes) featured the same type specs: 8 point Futura with 1 point leading. "We wanted the simplest set of specifications system-wide," explains Malandrino.

Crane's Crest Fluorescent White Opaque with engraving was chosen for executive use and Strathmore Writing Bright White with offset printing was chosen for general use. "There was a consensus about using a bright white stock, because the colors of the magazines' logos are very brilliant and they would pop out of the page," says Malandrino. "And a wove finish was chosen because it expresses a more modern look." He adds: "We chose Crane's because we consider it the 'Rolls-Royce' of the industry, and Strathmore because of its quality and its worldwide availability." Geraldine Winters, Crane's Paper National Specifications coordinator, helped MARQ's design team in the initial selection of the Crane's Crest line.

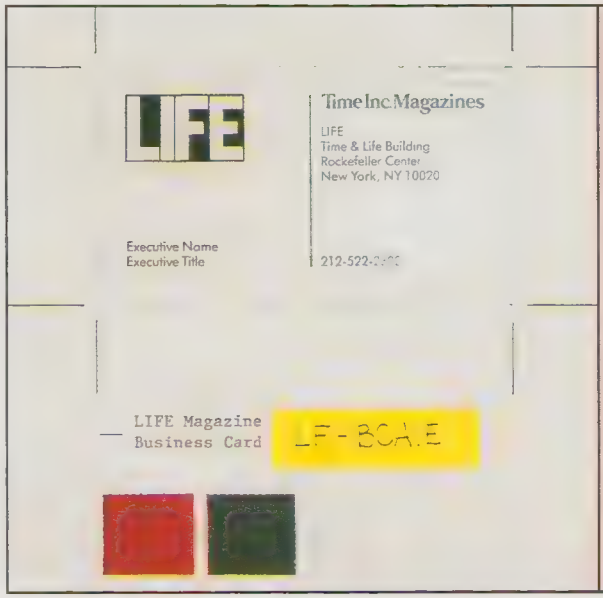
MECHANICAL ART

Before starting the preparation of mechanical art, MARQ ran a feasibility check with the client, their offset printers, and the engravers in order to determine the best way to produce the reproduction art. Malandrino explains: "We would have normally prepared a single master mechanical board for each of the stationery items [a total of 11 boards], scan it into the computer and then insert each magazine logo, address, and name directly on the computer screen." Instead, because the client needed to keep in its files a physical master of each stationery item for each of the magazines, MARQ prepared 152 master boards, each with the respective logo and address but with "000-000-0000" pasted down instead of the real telephone number, and with the words "Executive Name" and "Executive Title," instead of the real names. The boards were eventually scanned, and art for stationery items with real names and phone numbers was done on the computer screen. "It was a bit more time-consuming, but it helped the client's procurement traffic," says Malandrino.

MEETING PROCUREMENT NEEDS To facilitate the ordering and inventory procedures, MARQ developed a coding system for every stationery item for each magazine. For example, the business card for *Life* magazine was coded "LIF-BCA.E" ("*Life*", "Monarch Letterhead," "Engraved"). (See Figure 10.) "We purposely avoided certain letters, like 'I', in the coding because it can be confused with the numeral '1'," says Malandrino. "Sometimes designers develop a coding system made out of numbers; we feel it's confusing because the user has to keep referring to a master list. The way we did it, you can *read* the code and understand it."

Finally, a typing grid "mini-manual" was distributed to all administrative assistants, to instruct them on the few simple typing specifications. "Given the alignment points we built into the layout, you need to look at the typing manual once and you learned everything you need."

Concludes Ken Carson: "All the stated objectives were met, thanks to the efficient methodology we all followed; the system is now in place, and the response has been very positive throughout the organization." ■



10 In order to facilitate ordering and inventory procedures, MARQ developed a coding system for each mechanical board. Here is *LIFE* magazine's business card—"LIF" for *LIFE*, "BCA" for Business Card, and "E" for Engraved. MARQ prefers these literal codes to numeric ones, which can be difficult to read and remember.

Cronan and The Pickle Family

Using Studio 8 and Adobe Illustrator, Cronan Design Studio produces the first large format poster ever created with Lino separations.

By Nancy Friedman

Design, according to Michael Patrick Cronan, is "a truly human activity—a very high form of communication between individuals." Understandably, this high-profile, fine-arts-trained designer has a few qualms about introducing computers to such a human process. On the other hand, Cronan also obeys a cardinal law of design: Get the job done. When his biggest pro bono client, Pickle Family Circus, needed a poster created virtually overnight, and for peanuts, Cronan quickly saw that computers could be the catalyst. So he turned to a non-human design assistant—a Macintosh II—as well as an experienced computer consultant, Robert Schwarzbach.

From the start, the poster project depended on teamwork: between Cronan and Schwarzbach; and between the design studio and an outside computer design/publishing company, Krishna Copy.

SIZE DETERMINES TOOLS

Before any design work began, Schwarzbach met with Dr. Sanjay Sakhuja, the president of Krishna Copy's desktop publishing and printing subsidiary, to determine what technology would be used and what limits it would pose. The first limit was size: The Linotronic printer that would generate the color separations had a maximum horizontal limit of 11.7 inches and a vertical limit of 22 inches. The poster was intended to be twice as large. Sakhuja presented two options: produce smaller, higher resolution film and photographically blow it up; or integrate the size limits into the design. Schwarzbach and Cronan chose the second alternative, which led to a four-quadrant structure of the finished design. Sakhuja also advised the designers on line screen (133) and resolution (1270 dpi—again a function of hardware limits). Schwarzbach emphasizes the importance of working closely, and in advance, with support services: "They have the most up-to-date information about the technology," he says. In fact, just two months after the poster was printed, most of the software and hardware used to produce it had been upgraded dramatically.

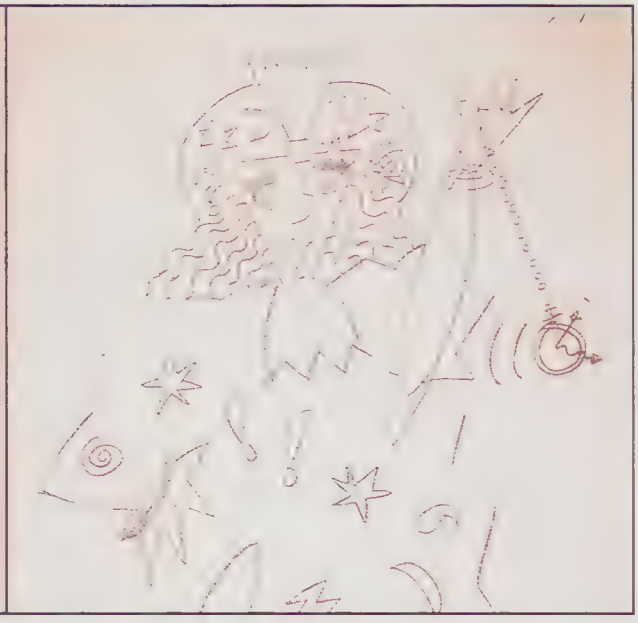
OTHER CONSTRAINTS There were other restrictions as well. As a member of the circus' board, Cronan has enjoyed a certain carte blanche in his design work—ads, set designs, programs—for this widely traveled, 15-year-old troupe. The poster, however, had a specific mission: It needed to be groundbreaking in appearance—to introduce a "new iconography" that would carry the circus into a new era. "The Pickles had a hippie image," explains Schwarzbach. "Even though they've become quite sophisticated, and were the ones who

Big Top Poster When faced with an almost nonexistent budget and an extremely tight deadline, Cronan Design combined drawing and color programs with the Linotronic to produce a 23 x 36-inch Pickle Family Circus poster in four quadrants, details of which are shown at left.

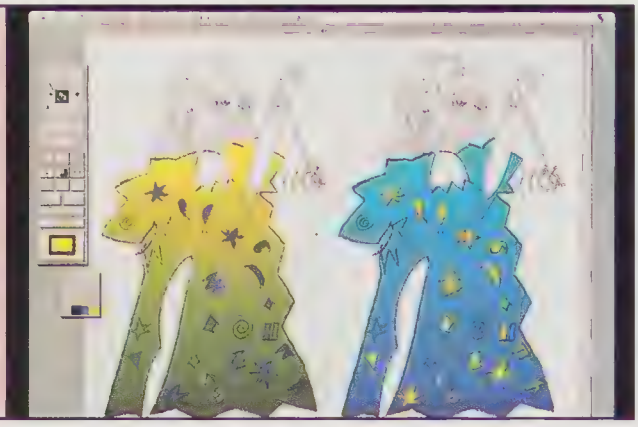
PICKLE FAMILY
CIRCUS

1 Working from photos and memory, Michael Patrick Cronan executes rough pencil sketches of the four characters to be spotlighted in the poster. The sketches were taken to Krishna Copy for scanning. Cronan Design Studio has opted not to buy a scanner, preferring to invest in computer memory.

2 Back at the studio, the floppy disk containing the scanned images is loaded onto the Mac II, imported into Studio 8 and brought onto the screen. Cronan became familiar with the program when he designed its packaging.



3 Using Studio 8, an advanced graphic design program, Cronan refines the shapes of the illustrations. Studio 8 offers a wide range of color and technique options, and color studies like this one could be easily explored.



gave [celebrated solo clown/comedians] Bill Irwin and Geoff Hoyle their start, the Pickles still were perceived as a funky little show."

There was also a time restriction: The poster needed to be ready for the circus' new holiday show in December. It was already well into October when the studio got the job. And, like all Pickle projects, this one had to be executed on "a budget of zero," says Cronan.

Rather than chafe at the constraints, Cronan accepted them as creative challenges. "My motto is, 'Let the limitations scream at me,'" he says.

SKETCHING AND SCANNING

Knowing that he needed four images, one for each quadrant, Cronan wasted no time picking them from among the circus' cast: Jens Larsen, a tall, European-trained acrobat and rings wizard; Lorenzo Pisoni, the teenage son of the circus' founders who currently serves as ringmaster; acrobat Ayin Sela, another teenager; and Queenie Moon, an outrageous female clown. "I know the circus well enough to know these are the people they should highlight," says Cronan. Together, they present an impression of skill and sophistication as well as of fun and entertainment. (The circus, a one-ring show, uses no animals or grotesque acts, and includes a theatrical set piece.)

Cronan produced rough pencil sketches of each character and had them scanned for use on the studio's Mac II. (See Figure 1.) The studio relies on Krishna Copy for scanning and most other peripheral functions. "We decided to spend our money on computer memory and go outside for peripherals, which become obsolete every six months anyway," says Schwarzbach. "We'd never use them enough to pay for them." The Mac II has an impressive 90-megabyte hard drive ("already nearly full," says Schwarzbach) with 8 MB of RAM; it is hooked up to an Apple 13-inch color monitor and uses a standard 8-bit video card.

A STUDIO ON A SCREEN

The floppy disk containing the scanned sketches was loaded into the Mac, and the real design work began. (See Figure 2.) Cronan used Studio 8, a brand-new advanced graphics program from Electronic Arts that he and Schwarzbach had learned when they designed its packaging. Studio 8's virtues include color gradients and custom palette-mixing of 256 colors

(resulting in 2 to the 8th power number of choices) for a virtually unlimited color range. In technical terms, Studio 8 is a bit-mapped language; this characteristic makes it ideal for creating smooth color blends. It is also ideal for Cronan, who has made color gradients a hallmark of his work. (See Figure 3.) On the downside, Studio 8 cannot achieve the perfect lines and sharp resolution of a vector-based program such as Adobe Illustrator (which was also used on this project).

In creating the poster palette, Cronan was aiming for "bright, cheery, happy" colors and an "obvious" color scheme appropriate for a circus. Studio 8 allowed him several color-mixing and grading techniques: a color square (the designer chooses the colors in the four corners; the program creates the gradient in between); a linear gradient; and an oil paint-palette blender. (See Figures 4 and 5.) With Studio 8, a color selection made from anywhere on the screen can be turned into a "brush" for painting effects.

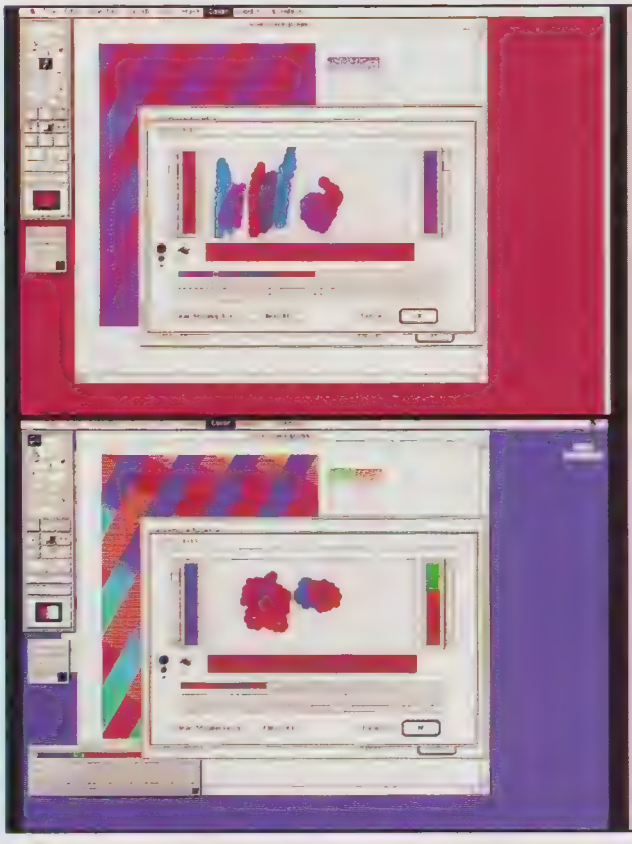
Cronan also used Studio 8 to finalize the illustrations and backgrounds. Early renderings were generated in color PostScript on a 300 dpi QMS printer, also based at Krishna Copy. (See Figure 6.)

4 To produce the color gradients he prefers, Cronan chooses from Studio 8's 256-square color grid—which can be commanded to "go warmer," "go cooler," "go lighter," or "go darker." Line gradients are also an option (below). The designer wanted "bright, cheery, happy colors" for the poster, as well as a color scheme that would be logical for a circus. Studio 8 offers the artist plenty of color choices, including custom color mixing of 256 colors, resulting in 2 to the 8th power number of choices.

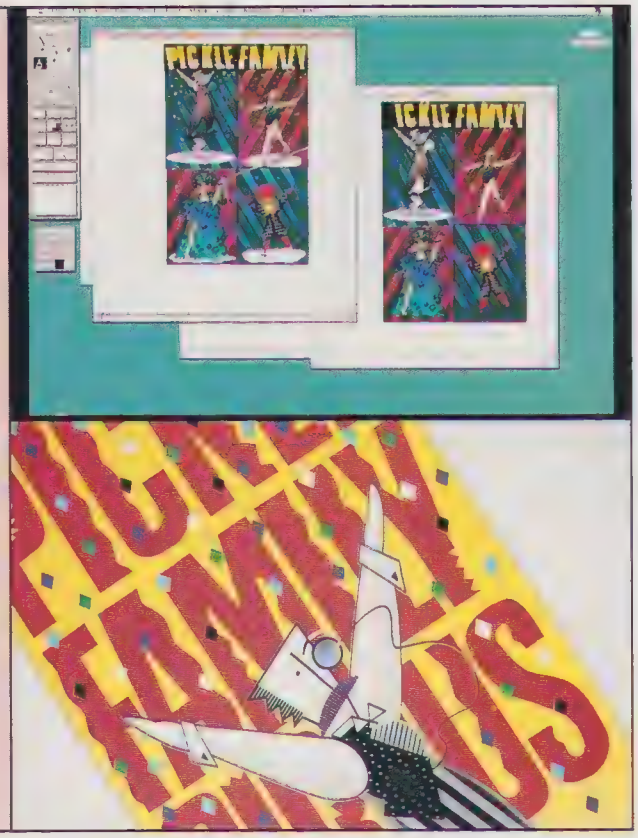
TRANSLATING INTO ILLUSTRATOR

At this stage, Cronan essentially turned over the project to Schwarzbach for the painstaking process of computer rendering. Although Schwarzbach and Cronan consulted regularly over the next two weeks, Schwarzbach did all the remaining hands-on work in Adobe Illustrator. Although Illustrator has become a fixture in many graphic design studios, up until this project, it had never been used to create a project as large in size (23 x 36-inches) as the Pickle poster. (Since the poster's creation in December, 1988, several equal-size projects have been produced with Illustrator.)

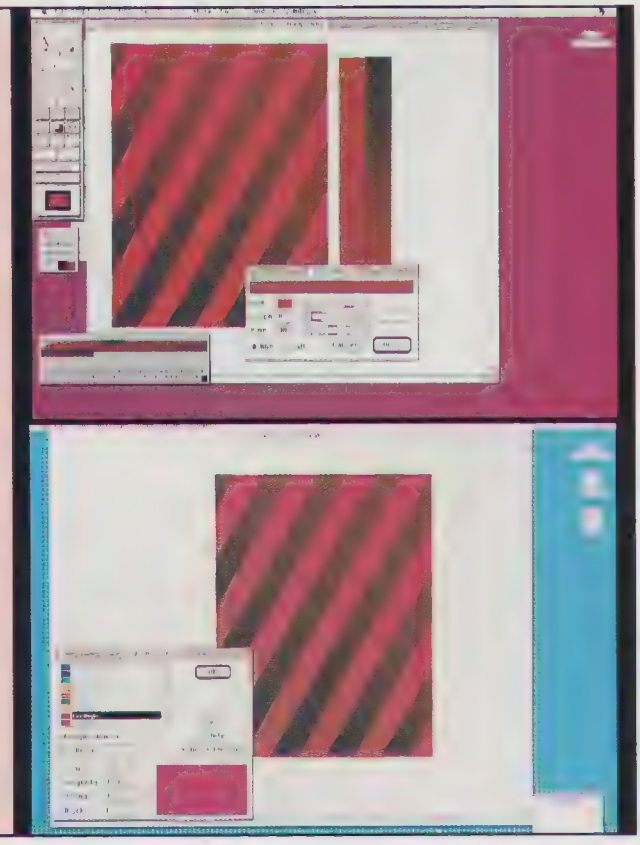
Schwarzbach's first task was to "translate" each color in the poster's palette. Studio 8 uses the computer's color "vocabulary" of red-green-blue (RGB); printing technology, as well as Adobe Illustrator, use cyan-magenta-yellow. Unfortunately, no button or program exists to translate the colors; Schwarzbach did all the calculations by hand. Fortunately, they were only tedious, not difficult: The red-green-blue scale is the inverse of cyan-magenta-yellow, meaning that 100 percent red translates to 0 percent cyan, 90 percent green translates to 10 percent



5 Here Cronan explores the custom palette mixing. He used all three techniques—a color square, linear gradient (bottom) and an oil paint-palette blender (top)—in creating his palette for the poster. In the color square technique, the designer chooses the colors in the four corners and the program creates a gradient between them. As color gradients are a hallmark of Cronan's work, this feature of Studio 8 was very useful.



6 Cronan uses Studio 8 to finalize the illustrations and backgrounds. Since it is a bit-mapped language, the program cannot achieve the perfect lines and sharp resolution of a vector-based program like Adobe Illustrator. Early color versions are taken—again via floppy disk—to Krishna Copy, where they were printed on a QMS color PostScript printer (top). Cronan goes back to the computer and modifies design and color where necessary (bottom).



7 With the design finalized, computer consultant Robert Schwarzbach takes over for technical rendering in a second software program, Adobe Illustrator. First, each color definition in Studio 8 (above) has to be converted from a red-green-blue scale into a cyan-magenta-yellow scale in Illustrator (below) that could be understood by a printer. Unfortunately, no button or program exists to translate the colors; Schwarzbach does all the calculations by hand.

magenta, and so on. (See Figure 7.)

Next, the images themselves had to be recreated in Illustrator. "It's not as horrific as it sounds," says Schwarzbach. "I was able to use some of the Studio 8 design as a background template. But I did have to redraw most of it."

Why bother with Studio 8 at all, then? "Two reasons," says Schwarzbach. "One is the tremendous color flexibility. The second is its fast feedback capability. Designers want something to hold in their hands—now. Adobe Illustrator is much too slow for that." (See Figure 8.)

So that more of the image would be visible on the 13-inch Mac monitor, Schwarzbach worked at 50 percent of final size. Because Adobe is a mathematically-based program, there is no loss of resolution when images are magnified.

MASKING AND 'PAINTING'

Adobe Illustrator works like a house-painter: First, it masks areas, then it fills them with color or pattern. In this case, both tasks are accomplished with a mouse and a computer screen instead of with tape and paint.

Schwarzbach first created the figures of Jens, Ayin, Lorenzo and Queenie by selecting points and tangent lines to describe curves. ("Calculus helps a lot here," he observes.) Next he created the striped background—once again, as a series of lines. The screen at this point resembled a radar map of a busy airport.

Then, from Cronan's palette that he had "translated" into Illustrator, he began creating the fill for each area: black, white, solid colors, and color gradients. As he proceeded to fill one area at a time, he commanded Illustrator to mask out the areas not being filled. In the striped background, for example, he "asked" the program to mask each diamond-shaped piece of confetti; later, he went back and filled in the diamonds with different colors. The masking technique had been another of Sakhaju's suggestions: It requires less computer memory than the easier (from the designer's standpoint) pattern-and-fill method. (See Figures 9 and 10.)

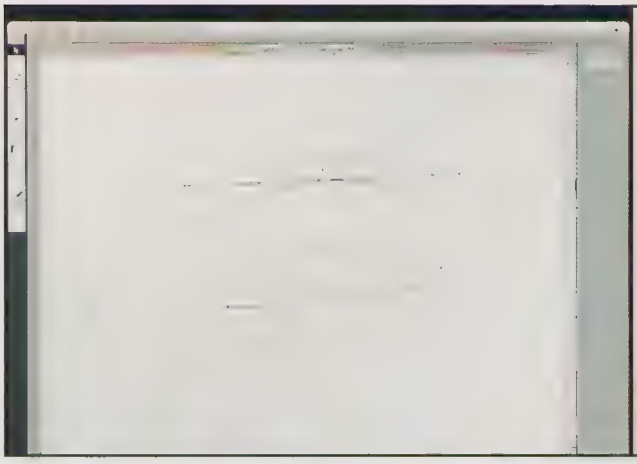
SEPARATIONS

Perhaps the greatest cost advantage of Adobe Illustrator is its ability to generate color separations. Bundled with the software package is a utility program, Separator, which breaks down the design file into four color plates complete with registration and printing marks.

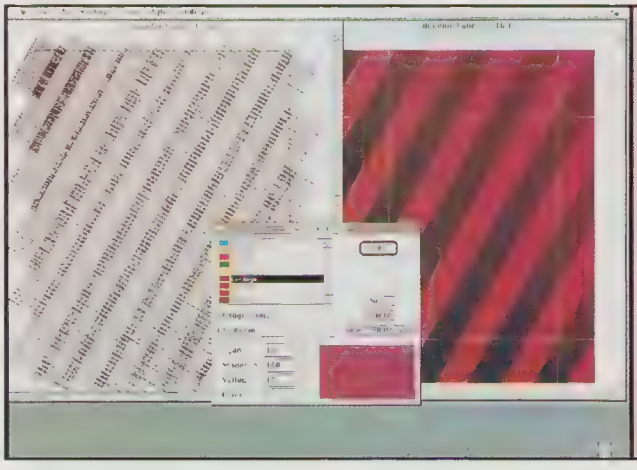
Because the files were so enormous, Schwarzbach soon realized he was pushing the limits of the program and of the Linotronic it would be printed on (again at Krishna Copy), a Raster Image Processor (RIP) II Version 49.3 with 5 megabytes of memory. "We kept getting a message saying 'memory error,' and had to keep going back into the file to fool with it," Schwarzbach says. The problem had to do with the mathematical description of the curves in the images. "With computers, a curved line is not a curved line but thousands of little straight lines," Schwarzbach explains. "The smaller the lines, the smoother the curve—and the more memory you use. So we increased the 'flatness' of the curves by slightly enlarging each of those little lines. Then the problem became the dreaded stairstep effect. I went back and forth until we were happy and the computer was happy."

Earlier versions of RIP IIs, and RIP Is, have significantly less memory capacity (as little as 2 megabytes). It is important, says Schwarzbach, to "work with your service bureau very carefully, and make sure they understand your needs."

Again, because of the Linotronic's size limit, the poster was printed in four quadrants. Color corrections were mercifully few. "With computers, you can't just say, 'Bring up the red a little,'" says Schwarzbach. "I had to act like the separator, on-

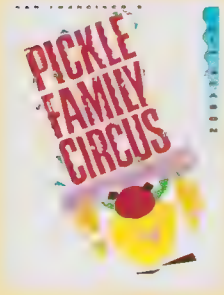


8 Next, Schwarzbach scans the same pencil sketch he used for the Studio 8 color version into Illustrator and begins to autotrace each image in that program. Illustrator and Studio 8 use distinct and incompatible computer languages.



9 To save computer memory, Schwarzbach masks shapes and fills around them with color gradients. Here you see the Preview mode in Illustrator (right) next to the working mode (left).

THE PAYOFFS FOR PRO BONO WORK



It looks good in your portfolio. It definitely feels good on your conscience. It's probably great for your karma. But by definition, pro bono design work is just not going to perform a miracle makeover on your checkbook.

You can narrow the gap between outlay and income, however, by using computers to speed the design and production processes. "Computers and nonprofit organizations are made for each other," declares Robert Schwarzbach, computer consultant at Cronan Design Studio. "Most high-quality, four-color work is beyond the budgets of smaller nonprofits. But with computers to help with design, rendering and separations, a lot of projects suddenly become feasible."

For example, the Pickle Family Circus, with its $1 million annual budget, has to scrape just to cover salaries (which average $11,000 for performers and staff). The circus wanted and needed a new poster, but "the budget for it was zero," says designer Michael Cronan, a member of the circus' board of directors. "A few printers were interested in partial donations, and Simpson Paper, a local company, was helpful. But that was it." Produced conventionally, the 1989 season poster would have cost $3,000 for separations alone. "But with the computer, we were able to create separations for just $100 per panel, or $400 total," says Schwarzbach. Using the same techniques, computer-generated separations for the circus' program cover cost a mere $25. (See inset.)

Production donations are, of course, hoped for devoutly. Printers often find it worthwhile to donate services because it draws new business. But, warns Schwarzbach, do not expect too much largess from strippers, separators, and stat services, which are not well enough understood by the public to gain a lot of business from program credits.

Money and logistics aside, there is a payoff to pro bono work: creative freedom. "The only saving grace to designing things pro bono," says Cronan with a chuckle of satisfaction, "is that I get to do whatever the hell I want."

ly what I was doing was going back to the computer and 'remixing' the colors in the program." His original formulas were "pretty close overall"—only two NAPS color proofs were needed. (See Figure 11.)

TROUBLESHOOTING PRINTING

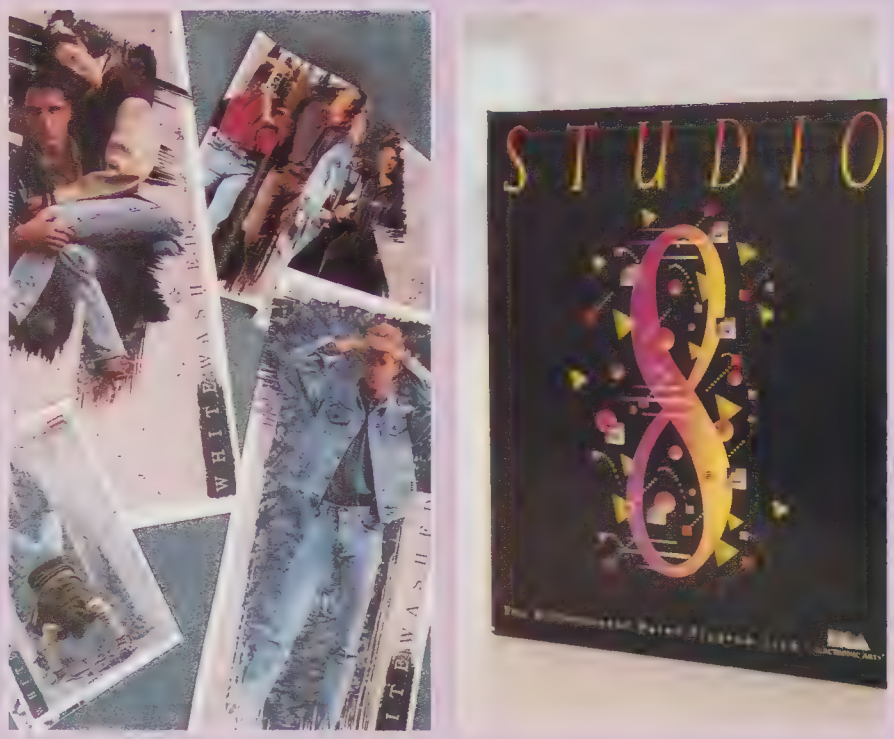
In its final stages—stripping and printing—the poster was assembled with traditional processes. The Linotronic negatives were brought to a San Francisco printer, James H. Barry Co., and the four quadrants were stripped together. However, there were some shocks when high-tech met tradition. For one thing, a bug in the Separator program had caused registration marks and color identification to be deleted from the film. For another, Schwarzbach had not allowed for the customary trap (usually about 1/32-inch) between colors—leeway in case the film slips out of registration. "When you trap you get fuzzy edges," Schwarzbach explains. "Michael wanted really crisp lines where the colors met. We had such extensive coverage on the piece that we knew there wouldn't be enough slippage for white to show through. Besides, we were working with one of the best printers in the business. We felt they could handle it."

CRONAN: IDEAS DRIVE PROCESS

The only way to go into computer design, declares Michael Patrick Cronan, "is to hire a computer maven." That's exactly what Cronan did after the 1987 Stanford University Publishing Course, where he had been galvanized by a demonstration of Adobe Illustrator. Cronan had recently bought a Macintosh for his studio but had not the time nor the inclination to master it.

Happily, he found Robert Schwarzbach, a 26-year-old fine arts graduate with a lucky blend of computers and arts-organization work in his background. In May, 1988, Schwarzbach joined Cronan Design Studio as a full-time contract consultant. "Michael liked me because I'm not your typical propeller-head," says Schwarzbach. "At the same time, I'm not a designer. I facilitate Michael's vision with a new tool."

The addition of computer capabilities has expanded the already impressive range of Cronan Design. San Francisco-born Cronan is internationally famous as one of "the Michaels," a quartet of San Francisco designers who share a first name, a general sensibility about design, and a friendly relationship. In the nine years since he opened his studio in an erstwhile sewing factory south of Market Street, Cronan has achieved individual recognition for his work in corporate identity, print graphics, exhibits, and interior and environmental design; his project list includes banners for Oakland's city center, software packaging for Electronic Arts, and trade show fixtures for Levi Strauss & Co. In 1985, he designed a book about the Pickle Family Circus, and soon became a willing draftee to the circus' board of directors. Besides the poster, he has designed sets and promotional materials for the European-style (no animals, no sideshows), San Francisco-based troupe.



Cronan Designs Among its recent projects, the firm has completed a sales package for Levi Strauss & Co., including a brochure, poster and P.O.P. (left), and Studio/8 software packaging for Electronic Arts (right).

Cronan works in a distinctive cut-paper style, reminiscent of Matisse. Sophisticated computer design programs can mimic it in a fraction of the time, allowing more opportunity for experimentation. "The important thing," says Cronan, "is to let the *ideas*, not the technology, drive the process. The moment the technology takes over, we're spinning our wheels."

Cronan retains a healthy skepticism about computer design—he compares it to "designing from across the room and over a wall," and cracks, "after the Pickle poster, we all went into therapy." Still, he is characteristically eager to explore the new territory. With another consultant's assistance, he used MacDraft to create mechanical sliding doors and furniture for his studio. "And we're producing a program for the San Francisco Symphony with pixelated photographs that's super-exciting for me," he adds, clearly smitten with the technology all over again.

However, the printer had never encountered such perfect separations with no tolerances. Cronan now acknowledges, "We should have allowed the printer more flexibility. We'd put 100 percent black in some areas where we should have had a little more tolerance."

Stripping was done on two sets of mylar, with opposite corners of the poster stripped on each mylar sheet for the optimal fit. The two sheets of mylar were then shot to produce one set of final film. Then, the poster was printed on 80 lb. gloss cover stock on a six-color Miller sheet fed offset press—with one more unexpected discovery: The Linotronic printer creates elliptical rather than round dots in the film. In conventional processes, that is considered a problem to be corrected. In this case, says Barry printing rep Kimberly Smith, "It's inherent in the (Linotronic) output device. And we think the poster looked great despite it."

The moral of this story, of course, is: "Talk to your printer before you start your project." For its part, the printer rose to the occasion. "We were extra careful in stripping and press work," says Smith. "It was a very interesting challenge." And Cronan agrees. "It was an excellent collaboration—once they realized that they were dealing with something radically different."

AFTERTHOUGHTS

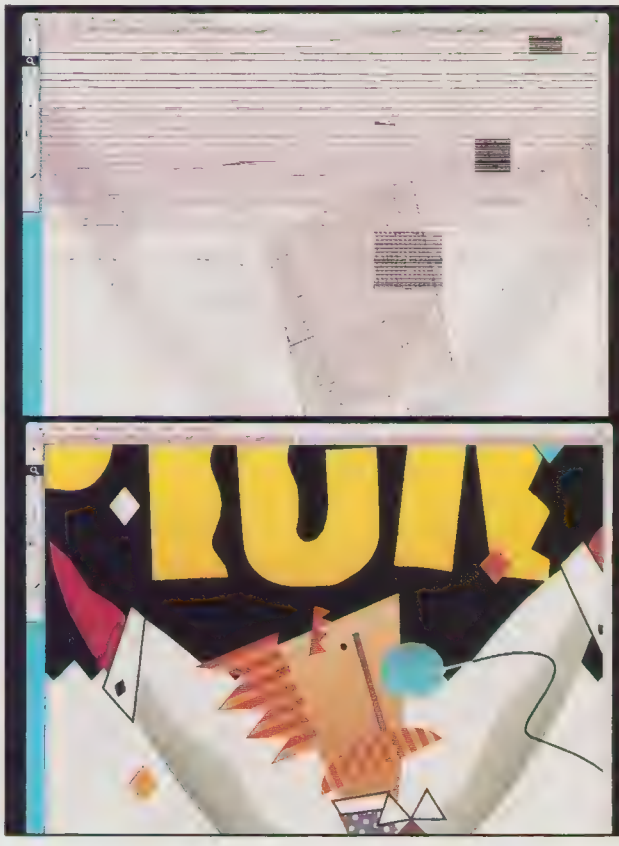
From start to finish, the poster took three weeks, or 50 hours of computer design time—less, says Schwarzbach, than it would have with conventional techniques. Not only was it ready in time for the circus' holiday program, it also made it into Adobe Illustrator's booth at the January 1989 Macworld Expo in San Francisco, where it was proudly exhibited as the largest project to date ever completed in Illustrator.

As a marketing and fundraising tool, the poster is performing excellently (it sells for $100). Are Cronan and Schwarzbach satisfied? Generally, yes, they say. "I can look at it and see flaws," says Schwarzbach, pointing out color bars in the gradients that are only barely visible when the light strikes the paper just so. According to Schwarzbach, refinements in Adobe Illustrator have already solved that particular problem.

For his part, Cronan says he has learned that the computer requires bolder strokes than traditional design methods. "On the screen the color differential within the gradients looked more pronounced than it does on paper," he says. "We were inching up to colors, changing the gradient by a factor of only 20 percent," he says. "We could have taken larger steps and changed it by 50 percent—that would have produced the quality I was aiming for."

Quibbles aside, Cronan has reason to look forward to the circus' next holiday season. By then, Electronic Arts will have brought out its latest version of Studio 8: Studio 32. Its major selling point is realistic color in a palette of 1.7 million colors. More than enough, one is certain, to keep Michael Cronan and Robert Schwarzbach busy on many future projects. ■

Nancy Friedman is a freelance writer and creative consultant based in the San Francisco Bay area.



10 This method of masking shapes first and then filling around them was selected on the advice of Dr. Sakhuja at Krishna Copy. It is somewhat more difficult to execute but much easier to print than straightforward pattern-filling. Schwarzbach filled areas with the colors he had translated into Illustrator from Cronan's Studio 8 palette. Once the design was complete, Schwarzbach ran the finished design through Separator, a utility program that comes bundled with Adobe Illustrator. The end result is four plates ready for printing on Krishna Copy's Linotronic.

11 The four negs (one for each quadrant) from the Lino were proofed on NAPS color proof material. Two sets of proofs later, the film was ready to print. Unlike traditional color correction in which a separator adjusts colors, Schwarzbach had to go back into the illustrations and "remix" the colors in the program.

Art of the Natural World

Learn the research and painting techniques Lorraine Moseley-Epstein uses to create a* Reader's Digest *promotion.

By David Epstein

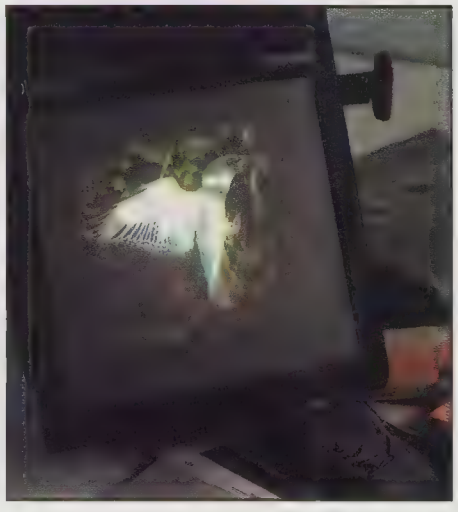
While botanical and nature prints from the past enjoy new heights as high-priced decorative wall art, today's nature illustration also enjoys a high-profile popularity. Each year in the United States, thousands of natural history books, magazines, greeting cards, stamps, pamphlets and posters carry untold numbers of nature illustrations that are seen, subscribed to, purchased and pinned up by admiring Americans.

For example, *The New Yorker* carried a 36-page travel supplement selling the virtues of vacationing in the Caribbean. Mixed in with the photos of water and sand were at least 16 full-color illustrations of the plant and bird life of the islands. Some months before, it published a 28-page insert extolling California. Along with photos of surfboards and the Forty-niners were realistic illustrations of a fish, whales, a sequoia tree, a sea otter, raspberries, various birds and a koala bear.

Subjects for the nature illustrator are endless and include the gamut of nature's forms, from limitless varieties of plants, flowers, animals, insects and shellfish to broader topics like gardens, anthropology and ecology.

Who are the artists that get these assignments and how do they qualify in this specialty area? It would be too simple to

Belted Kingfisher Lorraine Moseley-Epstein created this promotional illustration of a Belted Kingfisher for a planned *Reader's Digest* book titled, "Marvels of the American Land."



Reference Materials Moseley's basic equipment for a photographic outing includes: a field guide, a sketchbook, 2B and HB pencils, 35mm Olympus OMG camera, binoculars, various lenses (including zoom models), and a tripod (top left). There is always a need for extensive research (top right). Here Moseley compares the client's text and picture references to her own photograph of a Belted Kingfisher. Field guides and other publications provide additional details, poses and backgrounds (center left). Her slide and photoprint collection offers another view of the bird (center right). She rounds out her research with a mounted specimen rented from the Stamford Museum for $15 and a study skin borrowed from the Fairfield Audubon Center (lower left).

Photos by Marianne Barcellona

merely describe them as artists with a keen interest in nature who can render animal and plant life realistically and with scientific accuracy. The illustrators engaged in this work vary as widely as the subject matter itself. But their goal is the same: to depict the world of nature with the realism necessary for accurate scientific recognition and identification.

In a field of such diversity, there are obviously single-subject specialists who draw and paint the most esoteric of life forms, as there are the broad-ranged generalists who portray the most complicated of ecosystems. In between are most nature illustrators who, though they concentrate on certain subjects—botanicals, insects, birds, and so on—also have some expertise in related areas.

At times, botanical artists must be able to unerringly depict butterflies on blossoms, insect artists should be able to draw beetles eating rosebuds, and bird painters must be capable of showing songbirds feasting on moths amidst maple leaves. Ecological relationships form the matrix of nature, and the art reflects that. The exquisite birds of John James Audubon's familiar masterpiece "Birds of America," cannot be disassociated from the meticulously rendered backgrounds of branches, leaves, flowers, fruit, insects, vegetation and landscapes.

READER'S DIGEST PROMOTION

One illustrator admirably suited to this genre of illustration is Lorraine Moseley-Epstein. Originally a fine artist and textile designer, then later a free-lance illustra-

TIPS FOR NATURE ILLUSTRATORS

Nature artist Lorraine Moseley-Epstein offers these helpful tips to aspiring nature illustrators.

• A magnifying glass is extremely helpful for extracting fine detail, such as defining the structure in this small botanical drawing.

• In a less painterly, more decorative technique, the watercolor washes are outlined and the details indicated with a sharp H pencil line.

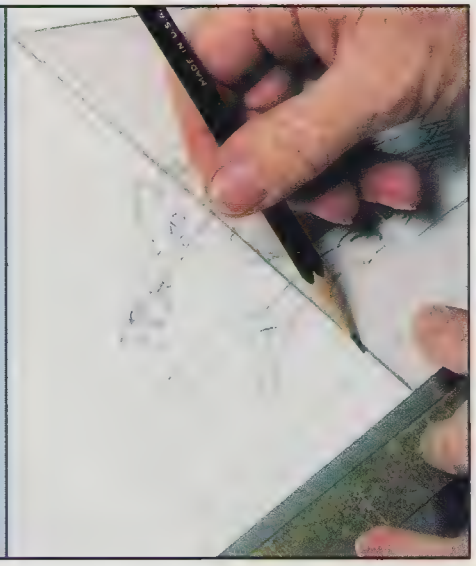
• Since bird specimens and study skins are not always available, it helps to collect properly identified bird feathers as references.

• For the finest of lines, a good No. 1 or 0 brush with a fine point does as well as a No. 00 or 000. They will also hold more paint and last longer.

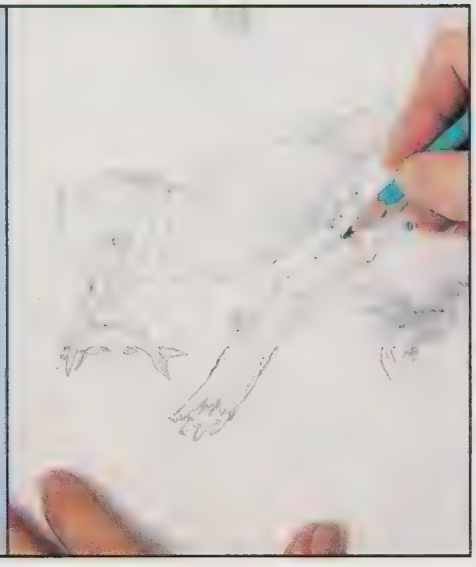
• It is the exacting detail, like imperfections in a leaf, that can create character or tell a story that draws the viewer into the picture.

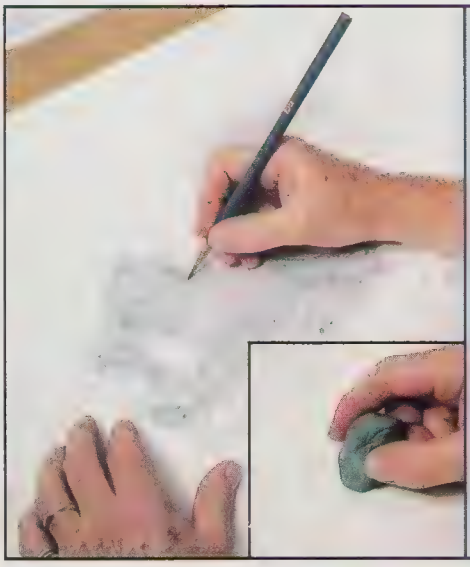
1 Moseley likes the pose in her photoprint because it looks active and has the right characteristics. She returns to the museum where the photo was taken and makes her first pencil sketches for the project directly from the display bird.

2 Adding details and more definition, she redraws the image onto tracing paper and then enlarges it to size. Moseley prefers using a grid system to make scale changes, but photocopy enlargements, as well as proportional dividers, can be used.

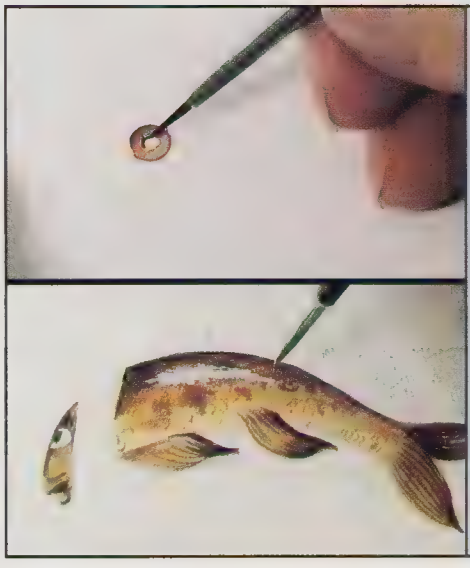


3 The artist does the final, precise drawing with an H pencil onto clear vellum paper. Accuracy and good detail are essential at this stage. The client sees this drawing and has it checked by an ornithologist for accuracy.





4 Using a 6H pencil, she very carefully transfers the drawing to the illustration paper via graphite transfer. She then carefully removes excess graphite from the surface of the illustration paper with a kneaded eraser to ensure she will have clean paint colors later on (inset).



5 Using No. 1, 2, 3 and 7 sable brushes (Winsor & Newton Series 7, Grumbacher Series 197 or Pro Arte Series 101) and Winsor & Newton gouache, Moseley starts brushwork and color tests. Here she does tests of the eye (above) and the fish (below).

tor, she has established herself over the last decade as a nature illustrator. Her portrayals of all manner of insects, birds, trees, plants and flowers have adorned the pages and promotional material of Time-Life Books, *Reader's Digest* Books, World-Book, American Encyclopedia, Macmillan, *Family Circle*, *Travel & Leisure*, *Gourmet*, *Food & Wine*, *Parents*, Mercy College, advertising agencies and textbook publishers. In this article, she demonstrates how she paints the colorful Belted Kingfisher, a fish-eating bird that nests in burrows along the banks of streams, rivers, lakes and bays. The illustration was created for a *Reader's Digest* brochure to promote the publisher's planned nature book, "Marvels of the American Land."

RESEARCH Compiling good research is the first crucial step in creating any nature illustration—and it is often the most difficult and time-consuming part of an assignment. "The more accessible, accurate and varied the references, the easier and better the job," says Moseley. "But there's really no substitute for the real thing, because the more you rely on photographs and printed references, the more you become a detective, cross-checking every detail for accuracy. Actual specimens remove the speculation."

In the artist's extensive research stage, she first consults her personal library of more than 200 nature books and 500 nature periodicals for printed examples of the bird. When required, Moseley does her

THE NATURE OF NATURE ART

Today's nature illustrator follows a tradition that goes back to ancient times. The earliest forms of nature illustration were more singular, as herbal art, in 400 B.C., when the ancient Greeks and Romans sought to describe the healing properties of the miraculous plants. But it was not really until 1400 A.D., when printing (from woodblocks) joined the indomitable curiosity of the Renaissance to create an explosion of information and art, that nature illustration became an indispensable ally of science in its new quest for knowledge of the natural world.

Nature illustration flourished as ornamental gardening and horticulture swept through Europe and as geographical exploration and discovery added new dimensions to the natural sciences. Ongoing advances in printing technology provided new capabilities for nature artists, culminating in the superlative, hand-colored copper-engraving, mezzotint, aquatint, stipple-engraving and lithographic prints and books of the 18th and 19th centuries. That period represents the zenith for nature illustration, a golden age in which the power and beauty of the artform went far beyond its original role as helpmate to science. The remarkable works of renowned Dutch, German, Italian, English, French and American artists of those two centuries are a testament to that deserving judgment.

By the start of the 20th century, the era of beautiful, hand-crafted nature prints was over; photography had already superseded illustration in many horticulture publications. The new and

Mercy College Calendars In one of her most unusual and rewarding assignments for this New York college, Moseley illustrated a series of poster-size calendars, one a year, for nine years. The promotional campaign was designed to attract attention to the college by using art beautiful and interesting enough to be kept on the wall all year long. It was so successful that public schools used them as teaching devices and local merchants displayed them prominently. On the calendars, Moseley has depicted wildflowers, foliage, butterflies and moths, mushrooms and toadstools, songbirds, waterfowl and birds of prey. In the last calendar in the series, the artist created illustrations for five different species of owls.

own photo research. Here, she checks her own collection of slides and prints, where she finds a photoprint of a museum-display Belted Kingfisher with a pose that she likes. For accuracy, she also decides to obtain a mounted specimen and a study skin (the pelt of the bird) from nearby nature centers. (See opening spread.) While the color of a specimen is unreliable, the mounted bird is excellent for the overall look. The skin is extremely useful because the wings and tail can be spread for study. To make additional sketches and photographs of birds or animals, at times the artist will even visit a museum, zoo or wildlife sanctuary. For living specimens of plants or insects, she searches out botanical gardens or woodland areas.

SKETCHES AND DRAWINGS Moseley likes the bird in her photoprint because of its active pose, which exhibits characteristics suited to the assignment. It also differs from the poses in the printed references, which is an advantage. To better capture the pose, she returns to the museum where she took the photographic reference and makes pencil sketches of the display bird. (See Figure 1.)

Adding some details and definition, she redraws the pencil sketch onto tracing paper, adding a grid in order to enlarge the bird to the finished illustration size. (See Figure 2.) The artist prefers the grid system to change scale, but photocopied enlargements (or reductions), as well as proportional dividers, can be used. Proportional

cheaper photomechanical printing of the day, although not yet capable of fine color reproduction, did create larger audiences through the publication of affordable magazines and books, foretelling new commercial opportunities for nature illustrators. The modern period of nature art for major, nonscientific markets began more than 50 years ago, with the publication in 1934 of Roger Tory Peterson's illustrated "A Field Guide to the Birds." The original edition of 2,000 copies sold out almost immediately and, with two complete revisions in 1947 and 1980, total sales have reached more than three million copies. Nature guides on almost every conceivable subject are now a staple for nature lovers all over the world.

TODAY'S MARKETPLACE

The nature guides are just one example of the successful expansion of nature art into new, meaningful public areas, beyond the reclusive job of serving sciences. In the past, a lifetime of purely academic work might be seen by only a few, but today's marketplace is much more diverse.

BOOKS These offer the best commercial possibilities because of their broad audiences, varied formats and endless subject matter. They range from pocket-sized field guides to giant-sized "coffee table" volumes, from encyclopedias, compendiums and illustrated dictionaries to childrens' books, cookbooks and schoolbooks.

MAGAZINES Surprisingly, most of the "nature" magazines, like *Audubon*, *Defenders* or *Natural History*, are heavily photographic and use very little nature art. Overall, the national consumer magazines do better. *Gourmet*, *Family Circle* and *Parents* might illustrate articles on fruit, vegetables, herb lore, shade gardens, hay fever agents or dangerous house plants. *Travel & Leisure* might show rare birds and wildflowers from faraway places. And *Smithsonian*, *National Geographic* and *LIFE* periodically use nature illustrators for major articles about geography, ecology, evolution, health, agriculture, wildlife and other issues of national or global interest. In addition, there are childrens', youth, hiking, camping, outdoor sports, trade and specialty magazines that deal with similar subjects.

ADVERTISING/PACKAGING Nature illustration has also been used in advertising and packaging to sell cereals, soups, candy, baked goods, health foods, coffee, tea, wine, beer, medicine, soaps, cosmetics, pesticides, paper products, lawn mowers, zoos, museums, travel, real estate, insurance, finances, fashion, energy and good will for the petroleum industry.

STAMPS Beyond publishing and the art of selling are the more esoteric markets. A significant one is stamps. The U.S. Postal Service routinely issues stamps carrying conservation and wildlife art. In 1981, it produced a single sheet of 50 different stamps depicting the official bird and flower of each of the 50 states. Each year since 1938, the National Wildlife Federation has published 36 new, illustrated wildlife stamps; also, federal and state conservation agencies issue "duck" stamps, using prize-winning waterfowl illustrations. These same agencies offer art-filled posters and pamphlets to the public. The gift shops of zoos, museums and other nature organizations also carry posters, calendars, greeting cards, bookmarks and a host of items decorated with nature art.

It is obvious today that nature illustration need not always play a strictly scientific role, that, apart from the field and research artists, whose work for museums and scientific organizations is rarely seen by the public, are illustrators who work primarily for the genre's public sectors. But, no matter what the commercial applications, nature illustration can never shed the standards of its exacting origins—attention to detail and, above all, accuracy. Poetic license and generalizations will not do.

Formerly of New York, nature artist Lorraine Moseley-Epstein now works and lives in Darien, Connecticut with her husband, David, author of this article. He is a graphic designer, illustrator, educator and writer, and is a regular editorial contributor to Step-By-Step Graphics.

tional dividers are especially good when drawing directly from models or actual specimens.

After enlarging the sketch, more details are tightened up, sometimes on separate pieces of tracing paper. When everything is resolved and properly in place, she draws the full, final version of the composition—the bird perched on a dead tree limb with a fish in its mouth and a nest in the background embankment with water and grasses—onto clear vellum with an H pencil. (See Figure 3.) This is the drawing the client sees. Usually, the client will have a scientist, in this case, an ornithologist, check the drawing for accuracy. No corrections were required, attesting to the quality and completeness of the research.

To transfer the sketch, Moseley blackens the back of the drawing with an H pencil, rubbing it with a stump or facial tissue to remove excess graphite. She then tapes it to the illustration paper (hot press Strathmore, Fabriano or D'Arches) and adds registration marks in case the transfer is unavoidably interrupted. The final drawing is transferred with a 6H, or harder, pencil. A kneaded eraser removes excess graphite from the paper so as to keep the paint color clean. (See Figure 4.)

MEDIA Moseley paints with a variety of media including gouache, transparent watercolor and acrylics. She is often called upon to use transparent watercolor if the illustration will be part of a series in which other nature illustrators are contributing work—an encyclopedia or nature book, for instance. For the overall look, all of the artists are required to use the same medium.

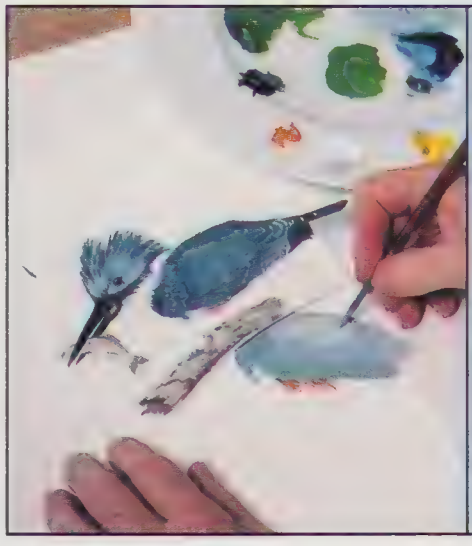
While watercolor is often her medium of choice for botanicals, the artist finds she most often uses gouache for subjects like birds. "I like gouache because of its opacity, and because I can paint over areas. But unless you use very watery washes, gouache and watercolor are in reality very similar. In fact, the two are often interchangeable."

When possible, she likes to use acrylics because of the richness of color that is impossible to get with either gouache or watercolor. "You can overpaint, the colors come though, and you can glaze," she says, "but it is not as delicate a medium." Because of that reason, if an illustration requires very fine details, she will use

6 She does a test of the entire head and fish combined with portions of the body and tree limb. She then compares alternate versions of the wing, looking for the best color and detail.

8 Starting with middle tones, she paints the rest of the head, creating the head feathers with shadows and highlights. The mounted specimen and study skin are extremely important in rendering these details.

7 With tracing paper beneath her hand to protect the paper surface, the artist starts the final painting. She feels that creating a life like eye is an important first step to painting a portrait of a living creature.



9 Using a No. 7 brush, the artist lays in the middle tone underpainting for the body, with her test as a guide. Dimensions will be added with the introduction of shadows and highlights.

gouache, as she did for the Belted Kingfisher assignment.

COLOR TESTS For the painting, she uses No. 1, 2, 3 and 7 sable brushes (Winsor & Newton Series 7, Grumbacher Series 197 or Pro Arte Series 101) to apply Winsor & Newton gouache paints. The No. 7 is for underpainting larger areas (body and background) while the No. 1, 2 and 3 are for the details. She uses a white porcelain dinner plate or 1/4-inch thick white glass or plastic as a palette. She always does tests of parts of the illustration to establish color and brushwork approaches. For now, she paints an eye, the fish, the complete head, the tail, wing and back feathers and the tree limb. (See Figures 5 and 6.) Satisfied with the tests, she proceeds to the final illustration.

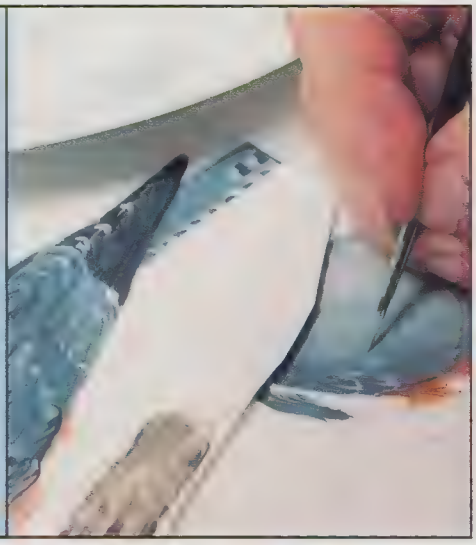
FINISHED PAINTING Believing a lifelike eye creates a rapport with her subject, she paints the eye first and follows with the head to give the portrait personality. She paints larger areas with the middle tones first, then layers in the lighter and darker tones to add dimension. Guided by her tests, she introduces shadows and highlights. The finest of details, like the white, downy feathers under the body, are done last. (See Figures 7 through 12.) At all times, she keeps the illustration protected by tracing paper to avoid damage to the paper surface from her hand. Her last tests are of the embankment, water and grass, which she then incorporates into the final painting. (See Figure 13.) Except for last-minute nuances, the assignment is complete.

DETAILS TELL THE STORY

"Something to remember when painting nature," Moseley explains, "is that the details tell a story. They explain what is happening. One leaf might have insect damage, holes, discoloration—a harder life than another. And breezes affect things—feathers tuft up and leaves bend. There's even the theatrical droplet of water. Everything adds character, so you search and choose from among the logical possibilities. People may not be aware of it, but they respond to character in a painting. They certainly know when it's not there."

Born of science, nature illustration is still very much an expression of art. Beyond the scientific scrutiny is the artistic vision—the ability to see the details without losing sight of nature's soul. ■

10 Still referring to the test, she adds more colors and feather patterns to the body. "Something to remember when painting nature," says the artist, "is that details tell a story."



11 Once the feet, feathers and tree limb are completed, she delicately indicates soft, downy feathers near the legs. This is accomplished primarily through a subtle shift of values and fine brush strokes.

12 She compares a wing test with her final version, which she painted slightly softer than the test pattern. Notice also the dark tail feathers she added in the final version.

13 She does last-minute tests of water, grass and river bank, and then incorporates them into the illustration. "Everything adds character," says Moseley, "so you search and choose from among the logical possibilities."

Miller's Genuine Draft Packaging

From "pour shot" photography to rotogravure printing, Design North teams up with Miller Brewing to produce a package.

By Thomas Rholl

With a conference room that has evolved from a chicken coop, and a president's office that once housed a granary, at first glance the offices of Design North might appear to be nothing more than a hybrid collection of well kept Midwest farm buildings. But, even the most casual observer notices the fifteen foot yellow pencil rising out of the front lawn like a Claes Oldenburg sculpture, suggesting that perhaps something more than agrarian pursuits takes place here. This montage of buildings, some dating back to 1889, renovated over a 24 year period from several structures, houses a sophisticated electronic design studio. In fact, implementation of computer technology has become so pervasive at Design North, notes Computer Design Systems Manager Minton Brooks, "It has been suggested by several friends that there should be a 400 pound mouse in the front yard."

A "full service" design studio, with many prestigious corporate accounts, the firm is dedicated to maintaining vertical creative and production control over all projects for its clients. They work directly with clients, and not for any agencies. This means having copywriting, typesetting, design, production and photography all in-house—services which are invaluable when working with large corporate clients with sophisticated communication needs like Miller Brewing Company.

THE GENUINE DRAFT PROJECT

A company like Miller Brewing develops tremendous equity in its product packaging, spending tens of millions of dollars annually on printing. Designs are not changed often.

According to Corporate Manager of Package Design and Development Bernie Spinelli, a typical design may last for several years without any significant changes. As new products are added to the Miller line, such as the recent introduction of the Genuine Draft packaging, design concerns follow practical considerations of color and image to keep in line with the parameters established by brand management at Miller. Rarely does a package design project involve a long, complex identity process.

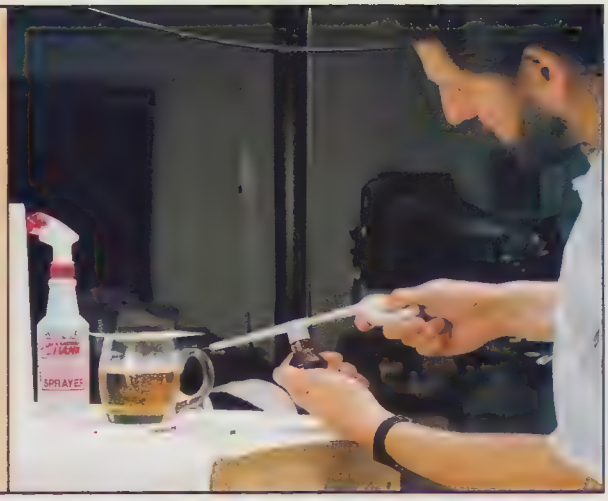
THE SKETCH STAGE Design concepts usually start in the heads of Bernie Spinelli and Design North President Lee Sucharda. Ideas may begin as pencil sketches, or they may evolve from "pour shots" of Miller products. At Design North, the typical working methodology on an entirely new package design begins with a team of designers in conference to kick around aesthetic issues and decide on a production schedule. The redesign assignment for the 12-ounce, 24-can Miller Genuine Draft box, however, was fairly straightforward.

Notes Spinelli, "Black is the dominant color for the Genuine Draft product. So with the 24-can Miller Genuine Draft box, we were simply trying to establish a look consistent with other packages in the line." In this case, the redesign required a new color pour shot of a frothy glass of Miller beer and changing the white tops and bottoms to black. End panels were

A New Addition The equity a company like Miller Brewing develops in its product packaging is invaluable. Design North used a combination of electronic and traditional techniques to design the packaging for Miller Genuine Draft (24-can box, comp at lower right) so that it would stay within the company's brand parameters yet have its own identity.

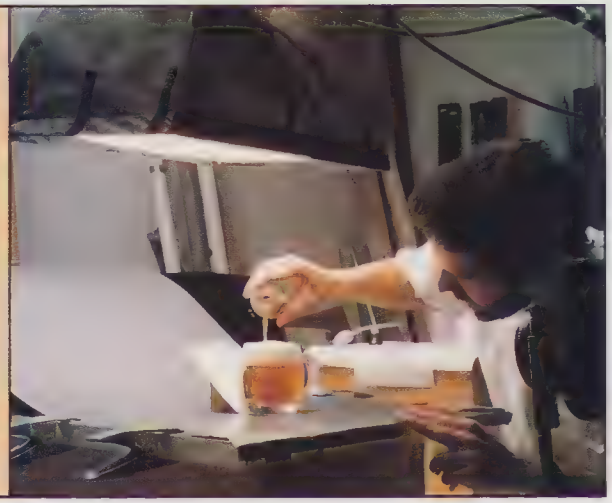
Photos by Deone Jahnke, Design North Staff.

Genuine Draft
Miller
Genuine Draft
Cold Filtered Draft Beer
Genuine Draft
Miller
Genuine Draft
Genuine Draft
Miller
Genuine Draft
12 OUNCE LONGNECK
34100
Genuine Draft
Miller
Genuine Draft
Cold Filtered
Miller
Genuine Draft
24-12 OUNCE CANS
CONTAINS NO ADDITIVES OR PRESERVATIVES



1 Design North photographer Jim Wend atomizes a beer mug with a solution of glycerine and water. This procedure will allow the mug to appear wet and frosty throughout the shoot. The glycerine solution does not evaporate, so the prepared mug may last for weeks or even months.

2 Small droplets of the glycerine mixture are applied to the mug with a hypodermic syringe "to get a droplet of water just right on the mug," says Wend. The client, Miller Brewing, is very particular about how its products are photographed.



3 Miller is very particular about the proportion of beer to foam. The foam should start just above the wings of the eagle logo and should be slightly rounded over the rim of the mug. The white card behind the glass will reflect light back through the beer to create the proper color required by Miller.

recomposed as well. The task for designers, then, was to design and produce color prints which would be used to create a three-dimensional comprehensive for review by Miller.

THE STUDIO SET-UP

Design North has had in-house photography for almost four years, and the staff has become adept at doing product shots, according to the firm's photographer Jim Wend. For several years, the photo studio was a tabletop arrangement in the basement of the Design North complex, which created difficult lighting situations. Recently, the company converted a storage shed into a 2,200-square-foot photo studio with a 14-foot ceiling, a dressing room, and a coved backdrop made of drywall which can be colored with latex paint as needed. The studio also has an overhead door, which came in handy when Wend recently photographed a Jeep with a canoe on top for the Johnson Worldwide Associates annual report.

"I'd like to think we can do almost any photo project," says Wend, "although it's largely a matter of convenience for the designers. They can save a lot of time by art directing a shoot in-house, rather than going to a Milwaukee or Chicago studio."

THE DIGITAL LINK

It may be unusual for a design studio to have in-house photo capabilities, but Design North is consciously integrating the photo processes into the digital environment. Says Wend, "Minton [Brooks] has talked about setting up an input device in the photo studio, like a scanner or frame grabber. We are already connected to the design studio with Ethernet cable. We tried using the JVC Pro-Viz unit, but it can't work with our strobe lights. We experimented with the Canon CCD still video camera, but the resolution is low, although it is portable and will work with our strobe. I'm anxious to get into the loop." Having a direct digital link from the photo studio to the designers would allow Wend to create many "what if" shots for the designers. Recently, for example, the photo studio shot a variety of blank beer cans. These were scanned into the computer as three-dimensional templates, and the designers are experimenting with soft-

ware which will allow them to wrap label designs directly onto the surfaces on the computer.

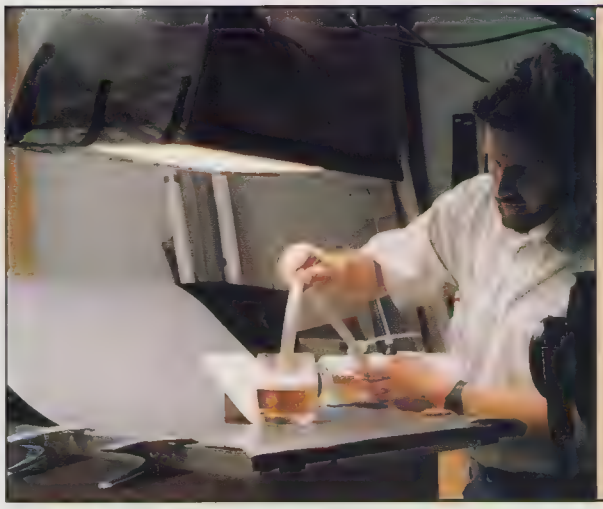
SHOOTING THE POUR SHOT

A "pour shot" is a photo of the Miller beer immediately after it has been poured into an ice-cold glass mug. Miller is very particular about the color of the beer and the proportion of foam to beer in the glass. In essence, the product must look perfect. The color must be a rich yellow/amber, and the foam must start just above the top of the eagle's wings on the glass, and be slightly rounded above the rim. Since a shoot may last all day, and require dozens of exposures, there are a variety of technical problems for Wend to solve.

In order to simulate an icy cold glass mug, a mixture of water and glycerine is used. This solution is sprayed on the mug with an atomizer to create the look of a wet, frosty glass surface. (See Figure 1.) The water and glycerine mixture does not evaporate, so the mug can be used for the duration of the shoot without the simulated surface melting away. "Sometimes I use a hypodermic needle to get a droplet of water just right on the mug," says Wend. (See Figure 2.)

Lighting is another concern. Since photographing a glass of beer is like shooting a mirror, Wend must set up a five-foot-tall horseshoe-shaped shroud of diffusion material around the mug. This is to eliminate unwanted reflections which might otherwise appear on the glass. He will shoot through a hole in the shroud at the apex of the horseshoe curve. Wend then places foil or cardboard reflectors behind the mug to reflect light through the beer toward the camera. (See Figure 3.) When this is accomplished, he will make several test shots using a Polaroid film back on his view camera. This will give him a decent idea of exposure parameters, and provide position proofs for the actual shoot. He then makes a film test with Ektachrome to obtain more specific exposure information. It may take most of the day just to set all this up, according to Wend.

When it is time to begin the actual shooting, President Lee Sucharda is called into the studio. "Lee is an excellent beer pourer," says Wend. "He's had lots of ex-



4 After each pour shot is taken, the beer must be sucked out of the glass with a wet-vac, in order to avoid disturbing the carefully prepared surface of the mug. According to Wend, during a typical shoot at Design North, they may go through several cases of beer.

5 A Sharp JX-450 flatbed scanner is used to scan the pour shot photo. Technician Jeff LaBadie uses Laserpaint's scanning routine to drive the Sharp. The JX-450 can scan reflective or transparent color originals at 300 dots per inch, scanning the image three times, once each for red, green and blue, to create a 24 bit color file.

6 LaBadie uses the Pro Viz digitizing unit with a JVC color CCD video camera to "capture" a single video frame at the relatively low resolution of 640 x 480 pixels, which translates to roughly 72 dpi on the Macintosh screen. Plastic diffusion material and polarizing filters are placed between the copystand lights and the copyboard, to eliminate reflections off the aluminum beer can.

perience. It's a real art. If you pour the beer too fast, you get too much head. If you pour too slowly, you don't get enough." Between each pour, the beer must be sucked out of the mug with a wet-vac, so that the glass is not disturbed. (See Figure 4.) Wend is able to get one or two shots per pour, using a Fatil 8 x 10 view camera and a Speed-O-Tron strobe flash. Bernie Spinelli is usually present on these shoots, and with all the exacting technical and visual requirements, they will easily go through several cases of beer to obtain the necessary shots.

Photographs selected from these sessions are then given to the design staff for incorporation into the package design. Sometimes the pour shot photos will be used in the final printed package, but often Miller will reschedule a shoot later to produce additional product shots.

7 LaBadie combines the captured beer can image with the scanned pour shot in LaserPaint on the Macintosh. He can then adjust for brightness and contrast, and the relative scale of the objects can be manipulated for visual continuity. Files are then saved on the network fileserver.

8 The template for the 12 ounce, 24-can Miller Genuine Draft box is displayed in Adobe Illustrator as a PostScript file, having been translated from the packaging converter's CAD program in DDES2 format. The method preserves the original geometry of the package faithfully.

9 Lead Designer Pam Rice calls up the scanned images from the fileserver and begins working on the front panel of the Miller box in Quark XPress. During this phase, Rice may experiment with many color and image possibilities. Pieces can be saved for reference as working files.

CREATING THE COLORSCRIPT COMP

The Design North photographers presented a series of color transparencies from the pour shot to lead designer Pam Rice. Since the package would be assembled from a variety of scanned images and drawn vector artwork, she set up several folders on the hard disk of her Macintosh workstation to store the images during the design process. "Usually I'll create one folder for graphics and one for scanned files," says Rice. File management is a concern, particularly since scanned TIFF files can occupy a great deal of memory, from 200K to several megabytes each. The typical size, says Rice, is between 200K and 500K.

SCANNING The photographs chosen for this project were given to scanning technician Jeff LaBadie, who scanned them on the Sharp JX-450, and saved the images to disk. (See Figure 5.) LaBadie used Laserpaint software's scanning routine to drive the Sharp. The JX-450 can scan reflective or transparent color originals at 300 dots per inch, scanning the image three times, once each for red, green and blue, to create a 24 bit color file. For this job, LaBadie also needed to scan an actual beer can. In order to accomplish this, he used a JVC color CCD video camera on a copy stand with a Pro-Viz digitizing unit. (See Figure 6.) The Pro-Viz system "captures" a single video frame at the relatively low resolution of 640 x 480 pixels, which translates into approximately 72 dpi on the Macintosh screen. Plastic diffusion material and polarizing filters were placed between the copy stand lights and the copy board, to eliminate reflections off the aluminum beer can.

COLOR CORRECTING LaBadie then used Laserpaint software to color correct the scanned images, checking color by printing the files to the QMS ColorScript 100. (See Figure 7.) The ColorScript is a color thermal printer integrated with a PostScript raster image processor. It can print color PostScript files at 300 dots per inch resolution. After composing several different combinations of beer can and glass,

and adjusting the scale of the separate files for visual continuity, he saved the files into the appropriate folder on the network fileserver.

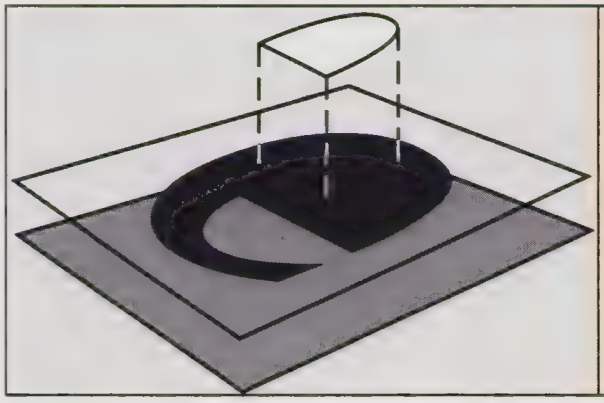
DESIGNING PANELS With the scanned images available to her on the network, Rice was now able to begin designing the separate panels for the 24-can box. A template was called up on the screen in Quark XPress. Instead of constructing the template in Adobe Illustrator or Aldus FreeHand, Design North has developed a technique to convert the dies created on the packaging converters CAD system in DDES2 format (Digital Data Exchange Standard) into PostScript. Once in PostScript, the template can be displayed on the Macintosh monitor in a variety of programs, maintaining the exact geometry of the original package die. (See Figure 8.) This is important because the color prints created from the design file on the QMS ColorScript 100 will be pasted up directly on a pre-cut package "blank" supplied by the converter.

Rice began work on the front panel of the 24-can box using Quark XPress. (See Figure 9.) Each panel must be produced separately. This is due not only to limitations in the printable page size of the color printer, but also because of the inability of Quark XPress to rotate text and graphics. For these reasons, Rice had to cut and paste between Adobe Illustrator, in which rotation is possible, and Quark to achieve the desired results. For example, a block of text can be set in Quark, and then cut and pasted into Adobe Illustrator. In Illustrator, the text can be rotated, saved as artwork, and placed back into Quark using the "Get Picture" command. In this way, the various panels making up the package can be created one at a time. (See Figure 10.)

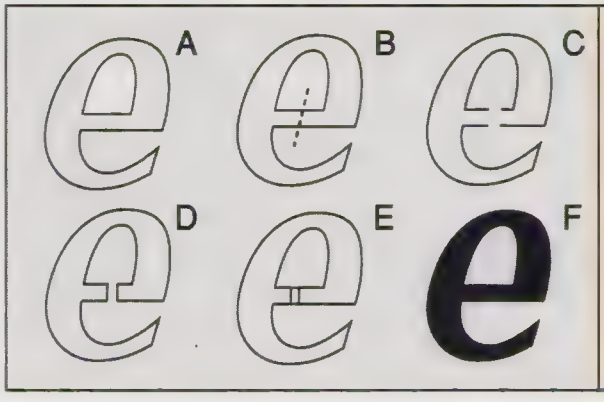
'SEE THROUGH' LETTERS One problem Rice encounters in this process is that when placing art back into a tinted box in Quark, the counters of drawn letters such as "O" or "e" are opaque, effectively blocking out the tinted background. Illustrator, like many of the PostScript draw programs, sees the counters of these letters as vector objects, which by default are usually opaque white. (See Figure 11.) In order to "see through" the letters, two techniques are used by Rice. In Illustrator, the counters can be filled with the same color as the tint in Quark. However, color information exported this way from Illustrator may not match exactly the tint color in Quark, and if the tint screen in Quark is a degradé, this problem is compounded. The best solution is to cut the letter in Illustrator with the scissors tool across one side of the bowl of the letter, join the inside and outside lines, and reassemble it. In this way, the counter will be transparent, and can be placed on top of any shaded or tinted background in Quark. (See Figure 12.)

Although a number of page layout programs could be used to assemble the images, careful experimentation at Design

10 Text and graphics can be rotated in Illustrator and then placed back in the Quark document as art objects since Quark has no rotation function. Two separate panel files, open simultaneously in Illustrator, are shown here. When completed, they will be imported into Quark.



11 Creating letterforms in Adobe Illustrator presents a dilemma. The counters, the hollow spaces in letters like "b" or "e," are usually opaque since they exist as vector paths, drawn and filled (usually with white) on top of the letterform. Any background color, therefore, is blocked out.



12 To correct this, the crossbar on the "e" (A) is cut using the scissors tool (B) and pulled apart (C). The cut sections are joined, creating a closed path (D). The crossbar sections are overlapped (E), making the entire letter a closed path (F).

North has convinced designers that the color printing capabilities and line screen control of Quark are superior to other page layout programs for their particular needs. According to Rice, some software tends to produce washed out or tinted images on the QMS ColorScript 100 relative to the colors seen on the monitor.

CREATING THE 'MEATBALL' FILE Along with the text and graphics needed to complete the design, a file entitled "meatball" was also required. The meatball is the Miller symbol, an eagle clutching a vine of hops in its talons, which is included on every Miller High Life package. The original file had been painstakingly vectorized in Adobe Illustrator several years earlier, so it was easily called up from a library disk for placement on the current package design. "We didn't have Adobe Streamline then," says Rice, "so we had to trace around each individual letter." However, the meatball, which is green, gold and red on Miller bottles, had to be color adjusted to meet the requirements of the new package. (See Figures 13 and 14.) With this completed, the various graphic elements of the package could be assembled, and Rice could begin to experiment with design variations. (See Figure 15.)

"At this stage," says Minton Brooks, "the design is very fluid. We use a variety of off-the-shelf software. We may use Laserpaint, FreeHand, Illustrator 88. Knowledge of the various programs is essential for the designer."

REMOTE COMMUNICATIONS

It is also during this "fluid stage" that a great deal of interaction may take place between Design North and Bernie Spinelli at Miller. The packaging department at Miller has extensive computer capabilities of its own, including a Macintosh II with a 19-inch Sony Trinitron monitor, a Sharp color scanner, QMS ColorScript 100, and a Pro Viz video capture unit. A modem link allows simultaneous viewing of the design file at both locations. This is accomplished using Telebit modems and Partner communications software running on a dedicated AT&T line between Miller and Design North. Partner allows interactive control of remote computers, so that Spinelli can "take control" of the cursor on a Macintosh at Design North while sitting in his own office. This provides a give-and-take environment in which color changes may be suggested and scanned images may be sent back and forth. Often this interactive computer exchange is coordinated in conjunction with a conference call. The software is so sophisticated, says Spinelli, that the response is instant. The only requirements for the system to work effectively are that both parties must be in the same software, and the modem connection must be made on a dedicated line to eliminate extraneous noise. If the phone line goes through a switchboard, data may be lost.

One weak link in the technology right now, according to Spinelli, is that of color calibration of the monitors between remote locations. There is almost always some color discrepancy between files displayed on different systems miles apart. Color monitors on microcomputer systems today use analog display. In the future, digital control of the RGB (red-green-blue) monitors may aid tremendously in the color calibration issue.

"The big impact is in the time frame," notes Spinelli. "[Design North] may move through 20 to 40 iterations of that carton design, especially on a new package. The time it takes to do traditional comps like Chromatecs or C-prints is terrific. The way I look at it, what we are really doing is replicating an analog medium digitally."

Rice says there were at least six different versions of the Miller Genuine Draft project and that each panel of the box was a separate file. This meant that a logical file management system had to be implemented to keep track of the various panels. With several large TIFF files included, six different versions of one package design can eat up a lot of hard disk space. File nomenclature also was estab-

13 The logo which appears on every Miller beer package is dubbed the "meatball." The image was scanned into Illustrator as a template and painstakingly rendered by Rice as line art. The file is saved in a library of images ready to be used by the design staff.

14 For the Miller Genuine Draft package, Rice called up the meatball in Illustrator, changed the colors of the logo to match the job specs, and then brought the file into Quark. In this case, the meatball was placed on the top panel of the package.

lished to avoid confusion. Once the final version was agreed on by both Miller and Design North, Rice was able to print the files on the QMS ColorScript 100. (See Figures 16 and 17.) These prints were delivered to the production department where Cindy Gau cut and mounted them onto pre-cut blank package dies provided by Miller. (See Figure 18.)

It is important to note that all the work up to this point is directed toward producing a three-dimensional color comp for approval by the brand manager at Miller. Says Bernie Spinelli, "The fact that these QMS prints can be approved at the brand manager level has been significant for us." However, Spinelli continues, "Every package that is put into the retail trade must also be approved by the corporate products committee, which includes Miller President and CEO Lenny Goldstein." At the CEO level, output from the QMS ColorScript is not adequate, and the entire project goes to traditional pre-press technology.

COLORSCRIPT TO PREPRESS COMPS

The corporate products committee at Miller requires actual press proofs to be made into three-dimensional comps for review. These comps are made in essentially the same way that Design North makes the QMS comps, but offset printing technology is used. Prints are made on a Heidelberg offset proofing press on "correct substrate," which is clay-coated SUS board, 18 to 21 points (thousandths of an inch). The separation films are prepared by the Jahn & Ollier Company, using a technique that emulates rotogravure on an offset press.

MECHANICALS The mechanicals used in this process are created by Design North from Linotronic 300 output. The same Macintosh files which created the QMS prints are used to make the line art mechanicals, but photographic images from these files are left in to show position only. The mechanicals are scanned into a Scitex imaging system at Jahn & Ollier, where very high resolution scanned images are electronically dropped in, replacing the photo images from the original file from Design North. Miller may use the same color photos in both processes, or it may provide Jahn & Ollier with entirely new prints or transparencies of the product.

PREP FOR ROTOGRAVURE Specially blended inks must be used to produce the required colors, including "Miller red." There are no secret ink formulas involved, but the press proofs must pass the scrutiny of Bernie Spinelli. "When I like what I see," says Spinelli, "I give them the OK." These prints are then delivered to Spinelli's production staff for assembly into three-dimensional comps. These can be presented to the corporate products committee.

After approval at this level, a new set of film separations must be made by an engraver. These films are used to prepare the gravure cylinders for the actual printing of the packages.

Rotogravure is basically industrial intaglio printing. Unlike offset printing, where the ink sits on top of the plate, the ink in rotogravure resides in tiny cells on the printing cylinder. These pits may be as shallow as 20 microns. Images are mechanically etched directly into the press cylinder. During printing, the impression cylinder rolls through a bath of ink and is

15 A variety of color schemes were tested during the design process. The windows on these files have been closed down around the panels so that several different panels are displayed on the screen simultaneously for visual reference.

16 The QMS ColorScript 100 is really a Mitsubishi thermal printer coupled with a PostScript raster image processor. It makes 300 dpi color prints from PostScript files in four successive passes of yellow, cyan, magenta and black. Prints normally take between ten and fifteen minutes to complete.

HIGH-POWERED PRODUCTION

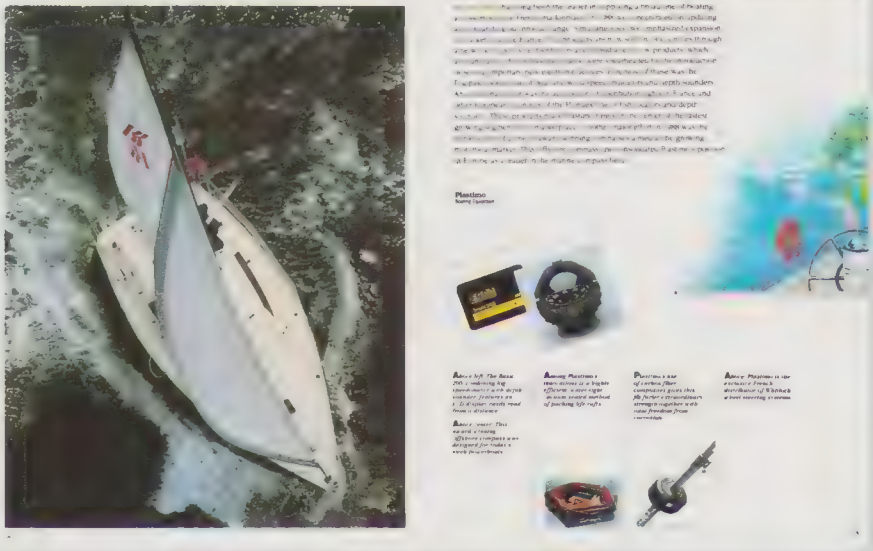
To say that Design North has aggressively applied computer technology to design problems is an understatement. Starting with a Mac Plus and a video camera in 1985, its equipment list has grown to include more than 15 Mac II's, two Mac IIx's, two SE 30's, 15 Mac Pluses, two Compaq 386's, one IBM PC XT, a QMS ColorScript 100, a Pro-Viz video capture unit, and three CRTronics terminals connected to a Linotronic 300. All this hardware is networked into three Appletalk zones. One zone is Ethernet for all the Mac II workstations used in design and production. The other two zones are set up for business and management. "We've been through every evolution of the Macintosh networking environment," says Minton Brooks, "including TOPS, Ethertalk, and 3 COM."

Staying on top of the ever-changing hardware and software is a full-time job. Products are constantly evaluated and added to the overall system as they meet the criterion of quality. "We are in the concept business, not the computer business," says Brooks, "and although the technology is embraced, the idea is still the most important concern."

The plunge into computer graphics at Design North began in the spring of 1985. Minton Brooks had been hired in February of that year as a senior designer with instructions to research and implement a computer design system. After many years experience in magazine design and publishing, and a stint at New York City's School of Visual Arts, he was looking for a firm committed to doing just that. "The Apple Laserwriter had just burst on the scene that spring," notes Brooks, "and we had a typesetting department that was in need of new equipment anyway. It was largely a question of convincing everyone at Design North that PostScript was the way to go. I wanted to make sure they felt comfortable going with Macintosh and Linotype. We did the basic research and made the decision to purchase the first set of Mac Pluses and an L300 with a PostScript RIP in September of 1985. I had had my Mac Plus system in from the first day on the job," recalls Brooks, "including a home video camera. I did all my work on the Mac, doing scans, laying out pages. There was no Pagemaker, no Adobe Illustrator, none of the tools we use today. I did a 28-page Oster catalog using MacPaint and my video camera. I couldn't do real type, of course, but I pushed the concept along. Things really moved from there."

In this constant development environment—"pushing the envelope," as Brooks describes it—systems management has become a full-time job. In fact, there are five people at Design North who assist in the technical aspects of management. Archiving files, technical support, software management, scanning and color correcting and networking are all positions occupied by technicians in support of the creative and production work. One of Brooks' more difficult jobs is the interface between sales and design. "Sometimes there is one design element or decision within a job that throws it from being a productive PostScript job to a non-productive one, belonging in another environment. I try to catch this at the outset and make that evaluation."

A paradox of the flourishing PostScript environment is file incompatibility between programs. This is also a responsibility of Brooks' that must be dealt with on a job-by-job basis. Monthly meetings are convened to establish optimum production parameters.



Advice in Action A two-page spread created by Design North for the Johnson Worldwide Associates' 1988 annual report illustrates the use of computer graphics as a comping tool. Early in the process, the client was able to see the color comp created on the Macintosh and ColorScript.

wiped clean by a device called the doctor blade, leaving ink in the recessed areas, where it can be transferred to a substrate.

Used extensively in commercial packaging, rotogravure maintains very fast press speeds, up to 45,000 impressions per hour, and the cylinders are sturdy enough to produce millions of these impressions before wearing out. Rotogravure also has the ability to deliver excellent color reproduction even on low quality stock. "It is a volume consideration," says Spinelli. "We may have press runs of between three and ten million per package."

Typically, rotogravure printing is done on web presses, where speed is measured in feet per minute rather than impressions per hour. Speeds of five hundred feet per minute are common, although Spinelli asserts that eight hundred feet per minute has been achieved with excellent results. The printed pieces are die cut in line and shipped to Miller.

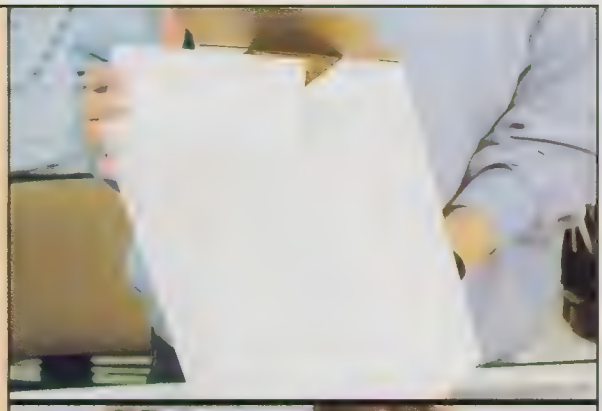
FUTURE POSSIBILITIES

The future may bring together the production capabilities of the Macintosh computers at Design North with the rotogravure cylinder engraving process. Theoretically, it would enhance production to have a digital link between the PostScript files and the rotogravure cylinder cutting process, eliminating film seps altogether. In practice, this may be some years off, although Bernie Spinelli points out, "It is being done. We are working on it." The larger question seems to be in what ways will this evolution in the technology affect designers sitting at the computer?

Says designer Pam Rice, "The way things have progressed here, I see it coming very soon. As a designer, I kind of fear going to that stage. I feel like I need to see some hard copy. I want to do design work. I feel very comfortable to a certain degree. I don't want the responsibility for making separations and registering plates. There's a technical aspect that I really want to keep separate."

Although Miller does not require its vendors to use computer graphics systems—the QMS output in essence serves as little more than the equivalent of a dry marker comp or a Chromatec—the main advantage in using the computer system now is for the rapid visualization of ideas and the ability to telecommunicate these ideas to remote locations. But Spinelli speculates about the future: "What's going to happen in the future, say within the next five years—when you are going to have clients who demand digital technology because they are looped into their engravers and separators? We will be in a filmless environment, and in the normal course of conversation we will ask—'By the way, what computer system are you using?'"■

17 Here Rice examines a thermal-printed finish of the front panel design. Rice prefers Quark because of the high quality color output it produces on the ColorScript, as compared with other software packages.



18 To assemble the three-dimensional comps, production artist Cindy Gau folds up a package blank provided by Miller (above). The stock is clay-coated SUS board. Gau carefully cuts the ColorScript prints and mounts them onto the blank with spray adhesive (below). It is important to note that all of the work up to this point was directed toward producing a three-dimensional comp for approval by the brand manager at Miller. At the corporate level, QMS ColorScript output is not sufficient.

Thomas Rholl is a MFA candidate in Computer Graphic Design at the Rochester Institute of Technology and president of TOTO Computer Graphics, Inc., a consulting and training firm in Milwaukee, Wisconsin.

Glazing With Colored Pencils

Learn how Tim Gabor's blending technique gives his colored pencil illustrations the look of oil paintings.

By Thatcher Freund

Tim Gabor's colored pencil illustrations look like thinly glazed oil paintings. While many colored pencil artists draw on textured papers to achieve the all too-familiar grainy look natural to the medium, Gabor prefers to draw on a slicker surface. Through a time-consuming process of blending the colors with the point of a neutral-colored pencil, he removes what little grain there is in the paper and obliterates all reference to his pencil strokes. The result may be colored pencil, but it looks like a painting.

DEVELOPING STYLE

From the moment Gabor first picked up a colored pencil in 1983, he has been fascinated by the medium. In fact, it is now the only one he uses. Initially influenced by two of his favorite illustrators, Blair Drawson and Anita Kunz, Gabor sensed a direction of his own when he saw his reflection in a chrome hand-dryer in a public restroom. He studied the image carefully and concluded that if he could reproduce it, he would be able to achieve a more realistic, three-dimensional image and yet remain abstract.

As he began to reproduce three-dimensional objects more realistically, he also began to understand facial structure better. "I remember spending more time on the face because I was starting to see things—slight tonality changes that I hadn't looked hard enough to see before. I was learning about light." Every morning he made faces in the mirror to see how the light worked around a different set of wrinkles. As a result of these studies, the heads in his portraits grew deeper in tone and larger.

Soon Gabor was getting portrait commissions of both the famous and the unknown from a variety of publications. He prefers portraits because "you can say a lot more with the face." While the famous presented no problems, he has always found it difficult to portray the not-so-famous. "Lots of times art directors commission portraits of unknown people," Gabor says. "That's certain death for me. Only a handful of people know the face. With well known people, everybody knows what they looks like. With the CEO of General Motors, you have to rely on a single photo. A lot of doing portraiture is knowing the reputation of the person. If it's somebody really flamboyant, you can convey that."

SPEED-BLUR As he developed, Gabor favored a technique for black-and-white work he would later call the "speed-blur." First he coated his paper with white pencil. Over the white, waxy surface, he drew with black pencil. Finally, he smeared the whole illustration with strokes of Prismacolor white. "I would show a lot of movement by drawing the lines in the same direction," Gabor explains. "When I put on the final coat of white Prismacolor, I saw I could achieve a painted look. That's the basis behind everything I do now."

Once he began to illustrate in color, he learned that he could blend the colors just as easily with small circular strokes. He would lay down the same base coat of white, add the color, and then blend using a light-colored pencil until he had wiped out every trace of the paper grain. The result looked like a painting.

But there was one problem. As he began to understand the medium, Gabor grew increasingly dissatisfied because his tones were too light. The circular blending seemed to work well, but the white base coat prevented him from getting his pictures as dark as he wanted. He grew more and more frustrated. "I was using less and less of the white every time," he says. "But

"Altered Egos" In this illustration of Eastern Airlines CEO Frank Lorenzo for *Regardie's* magazine, Tim Gabor blends his colored pencils on a sheet of Strathmore five-ply until the work looks like a thinly glazed oil painting.

I thought the white base was responsible for being able to blend the colors."

In a fit of frustration he decided to abandon the base coat and apply his colors in lighter strokes to an $8 sheet of Strathmore five-ply paper. Although this method required more layers of color, the final drawing was crisp and the colors brilliant. "It was a revelation," says Gabor. "I lost the base coat of white and everything blended easily. It was a huge step. I used to hate putting down that base coat."

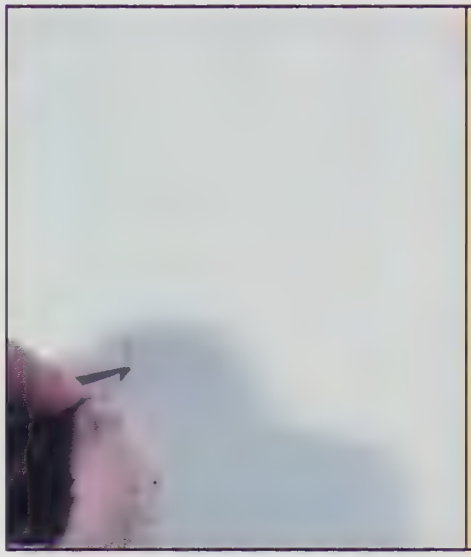
PAPER Surface is extremely important to the technique. Initially, Gabor favored Bristol board, a smooth-surfaced paper that worked particularly well for his blending technique. He has since switched to Strathmore five-ply. "The Bristol board was only a two-ply, and the colors seem brighter on the Strathmore," says Gabor. Like the Bristol board, the Strathmore has an advantage because it can be laser-scanned. I tried illustration board, but I hated peeling it off the backing," says Gabor. He also found that colors did not mix well on the cold press surface. The pencil could not find its way into the crevices.

VISUAL SATIRE FOR REGARDIE'S

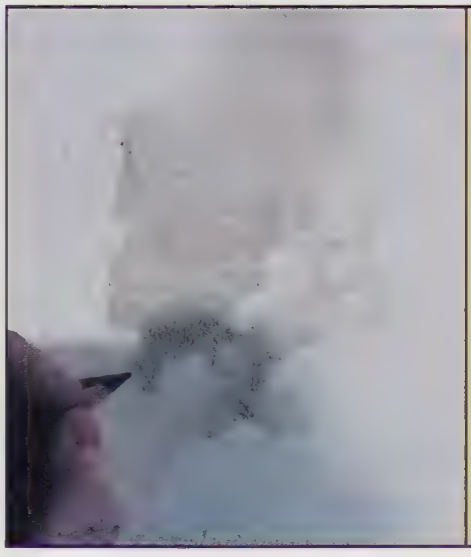
A unique approach to portrait illustration and a flawless technique are two of Gabor's strongest suits with today's art directors. For example, John Korpics, art director of *Regardie's* magazine has been using the illustrator since 1986, when he hired him to do a portrait of baseball pitcher Steve Carlton for *Philadelphia* magazine. When Korpics later moved to

1 *Regardie's* art director, John Korpics, asked Gabor to draw a picture of Eastern Airlines CEO Frank Lorenzo falling from the sky as the mythological character Icarus. Once Gabor has sketched a rough idea, he begins to play with his design by cutting and pasting.

2 Gabor always sketches on sheets of 14 x 17-inch layout paper, a perfect size for colored pencil work. On a sheet of tissue paper, Gabor outlines the dimensions of his final drawing over his cut-and-paste sketch to the 14 x 17-inch scale. He then traces the image.



3 Gabor transfers his sketch to a 14 x 17-inch sheet of Strathmore 5-ply hot press board using the graphite transfer method. With a Berol Verithin terra-cotta pencil he then traces over the graphite lines. He prefers to use a hard pencil like Berol for line work because it does not smear.



4 Working parallel to the fine grain of the board, Gabor begins laying down hundreds of light strokes of Prismacolor raw umber. The soft Prismacolor pencils are always used for laying in tones.

Regardie's, he began to work with Gabor extensively. "He's really good with people," Korpics says. "He's able to put them into interesting situations. His strongest talents are the way he can caricature individuals and their strengths."

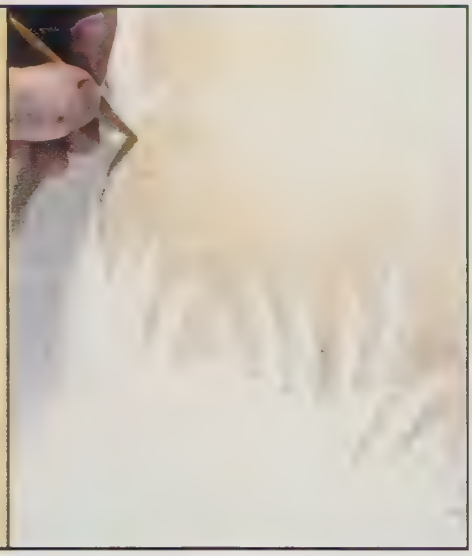
Korpics often uses Gabor for the last page of the magazine, a regular feature called "Altered Egos." The purpose is visual satire: to place figures from the present into the bodies of fictional characters or people from the past. Korpics and his predecessor have turned Joe Isuzu into Admiral Robert Perry, Lee Atwater into Al Jolsen and Dan Quayle into the Scarecrow from the "Wizard of Oz" (a Gabor illustration). The ideas for the page come from either Korpics or members of the editorial department.

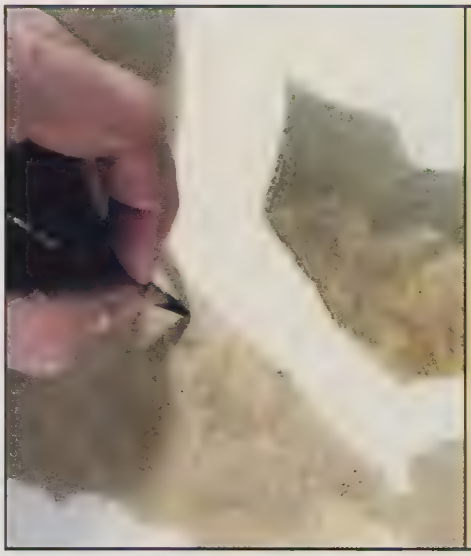
For an upcoming issue, Korpics wanted to picture Eastern Airlines CEO Frank Lorenzo as Icarus, a character from the Greek myths. (With wings built by his father, Icarus tried to escape from Crete but flew so close to the sun that the wax with which the wings were fastened melted, and he fell into the Aegean Sea.)

Gabor was the first illustrator Korpics called. "I envisioned Frank Lorenzo with his wings falling off," Korpics says. "There was the potential for a lot of very rich color in the wings and the sky. I thought that Tim could probably have a good time with it." Since he has worked with Gabor before, Korpics did not request a sketch.

SKETCHES Gabor first drew several rough sketches using reference clipped from a magazine. He played with his design by cutting and pasting, repositioning the

5 Once Gabor covers the clouds, he begins adding color. Around the sun he adds successive layers of Prismacolor cream and yellow ochre to give the clouds nearest the sun a warm glow. For cloud areas away from the sun, Gabor lays down parallel strokes of raw umber, ochre and slate gray.





7 The blending process inevitably lightens the colors. To compensate, Gabor goes back into the clouds and models them with darker tones. For example, he creates contrast by using burnt umber around the cloud edges.

6 When he is satisfied with the density and balance of his colors, Gabor then begins blending them. Using Prismacolor cream and white pencils, the artist begins working in a tight circular motion (approximately one-quarter-inch in diameter).

8 Once he has finished blending, Gabor then goes back over his drawing once more. The darkest colors are put down last because he has discovered that the dark colors tend to dull during the coloring process as his hand drags across the drawing board.

arms, head and legs, from various sketches until he found the right combination. (See Figure 1.) Gabor sketches on sheets of 14 x 17-inch layout paper because he prefers that size for his final drawings. (See Figure 2.) "The colored pencil works well at that size," he says. "It's thick lead, and if I go smaller I don't get the detail I like. If I go larger it's just incredibly hard to cover that much surface with little pencil strokes."

Satisfied with his cut-and-paste design, Gabor traced his image onto a sheet of layout paper and transferred it to a 14 x 17-inch sheet of the Strathmore five-ply using the graphite transfer method.

PENCILS On his final board, Gabor then lightly outlined Lorenzo and the background clouds with a Berol Verithin terracotta pencil. Gabor relies upon both hard pencils like the Berol and soft pencils like Prismacolor. For initial line drawings, he prefers a hard pencil rather than graphite because the graphite smears, muddying the successive layers of colored pencil. For initial line drawings, he likes the terracotta because it is a warm, neutral color. He also uses Verithin white to fill in lines he has scraped away with a razor. All shading is done with the softer Prismacolor pencils. Only rarely does the artist use colored pencil sticks because he finds they build up wax too quickly. (See Figure 3.)

LAYING IN TONE Working parallel to the fine grain of the board, Gabor began laying down hundreds of light strokes of Prismacolor raw umber until he covered all the cloud surfaces. (See Figure 4.) Then he

TIM GABOR'S DUAL ROLES

Thirty-one-year-old Tim Gabor wears hats as both art director and illustrator. Although his daytime job as art director of *New England Monthly* magazine requires him to put in between 40 and 60 hours a week, he finds time to take on free-lance illustration jobs. But there is a price: He sometimes starts work at three in the morning and nearly always works on the weekends.

Gabor produces approximately three assignments a month for such publications as *Regardie's*, *GQ*, and *Manhattan Inc.* His images of rogues and luminaries like Dan Quayle, Mikhail Gorbachev and Salvador Dali are immediately recognizable; and yet they reflect a Gabor style of portraiture: colored pencil images that look as if they were painted. "I have a lot more control over a pencil point than a brush," Gabor says. "When I blend the pencils it looks like paint, so it's like painting without the frustration."

Gabor grew up in Lexington, Ohio, a small factory town where he and his friends could get summer jobs dipping plastic blender parts into huge chroming vats. Gabor was the only artist among them. In high school, when he drew cartoons for the school newspaper, his medium was markers. The drawings were good enough to earn him a year's scholarship to the Columbus College of Art and Design, where he studied for a year before he got an offer to work for a T-shirt company in Denver. "When I got a call from the place in Denver I didn't think twice about it. I said yes. It was a way to get out of Lexington, and I knew I had to get out if I wanted to do anything."

At the T-shirt company, Gabor drew mostly with pen, dreaming up cartoons. Soon he was drawing cartoons for Denver newspapers. He and a friend devised a concept for a comic strip. The strips never sold, but this experience gave him

Stressed For Success An illustration for *The Robb Report*, A.D. Emilie Whitcomb.

Mikhail Gorbachev *The World Monitor* (Prototype Issue), A.D. Greg Paul.

Photo by Robert Tobey

began building up areas of color, one layer at a time. For example, he used yellow ochre and cream around the sun. For clouds further from the sun, he used ochre and slate gray. (See Figure 5.)

BLENDING When he was satisfied with the density and balance of his colors, Gabor began blending with the tip of a dull pencil. Using cream or white pencils because of their neutral color, he began working in tight, quarter-inch circles across the entire surface. This blending process mixes the colors and eliminates the stroke lines. It is this blending process that gives Gabor's drawings their painted look. (See Figure 6.)

The circular motion is important, says the artist. "If I blend in the direction of the strokes, the pencil lines tend to show through. The lines would be burnished into the paper and you could see them."

DARKENING THE TONES Inevitably, the circular blending process lightens the colors. To compensate, Gabor goes back into the clouds, modeling them with darker tones —from two to five layers depending on the value he wants. For example, he used burnt umber around the cloud edges to establish contrast.

"It doesn't matter how I lay this color down now," Gabor says. "Once I've sealed the drawing with the blending process, there's no grain problem. At this point, I usually use light, parallel strokes—but they don't have to be parallel to the paper grain." (See Figure 7.)

Each successive layer of new color is blended again. As an area gets darker, Gabor often switches to a darker pencil

enormous confidence in his abilities.

By 1983 Gabor had left Denver to work at the *New Age Journal* in Cambridge, Mass., with the designer Hans Teensma. Gabor began to illustrate mock assignments, which Teensma critiqued. After painting one assignment, Teensma asked him to do the same concept in a different medium. Gabor did not know what to do until he saw some colored pencils that were lying around the office. He has been using them ever since.

Three years ago, Gabor had progressed to a technical proficiency but was unsatisfied with straight portraits, which seemed too mundane to him. On a flight to Denver, he began scribbling aimlessly, then created faces from the scribbles. Out of these drawings came a stage in his development full of characters he calls the "Beanhead People." They had large round faces, cleft chins, and dimples. Art directors gave him considerable encouragement and, for the first time, Gabor felt he had a style. It has grown since.

But perhaps there is a new direction asserting itself. "I'd like to have a little more fun now," says the artist. "In the early days I used to get really wild with the bodies. Now I've seemed to mature. But I'm like the adult that doesn't want to grow up. Now I'd like to go back, to begin twisting the bodies and faces again, playing with the image, distorting it more. If I don't grow I'll just lose interest. I've also had this incredible urge to paint, but I've never had the time to try it. I just want to get messy, slop paint around and get it all over me."

Salvador Dali *Regardie's*, A.D. John Korpics.

for blending. For example, he might use raw umber instead of cream or white.

Once the blending on the clouds was complete, Gabor then went back over his drawing with dark colors again because he has discovered that they tend to dull during the process of dragging his hand across the drawing board. (See Figure 8.)

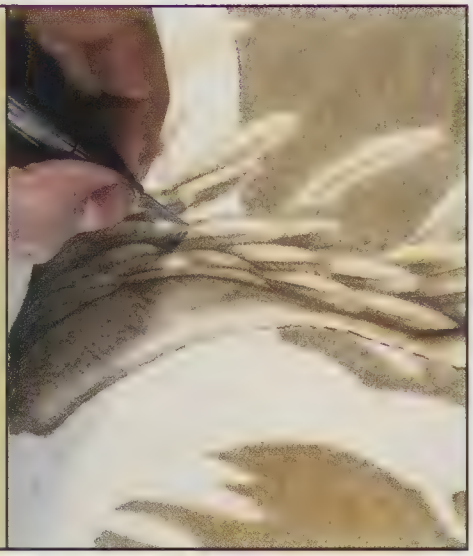
REMOVING WAX BUILD-UP When he finished the sky, Gabor modeled the wings using the same procedure. To give them a feathered texture, he scraped away highlights with a No. 16 X-Acto blade, making sure he did not scar the surface of his drawing board. He then filled in the highlight areas using a Berol white pencil so the paper was not exposed. Shadow areas were defined with a 3-B mechanical pencil. (See Figure 9.)

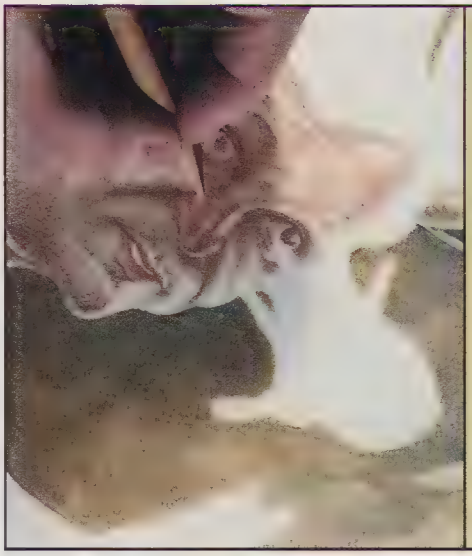
MODELING THE HEAD

For Lorenzo's head, Gabor first covered the face with light strokes of raw umber, always working parallel to the paper grain. For the eyes, nose and mouth, he added red. The shadow of Lorenzo's beard was drawn in with blue and slate gray. Satisfied, Gabor began the blending process on the face, this time using Prismacolor light flesh. Gradually, he tightened the drawing until he was satisfied with the detail. (See Figures 10 through 12.)

HAIR Gabor has learned over the years that hair is a different phenomenon than other parts of the body. With hair, the artist abandons every blending principle he has taught himself. Strand by strand, Gabor laid down Lorenzo's wavy hair using Prismacolor sepia. He drew in the direction of

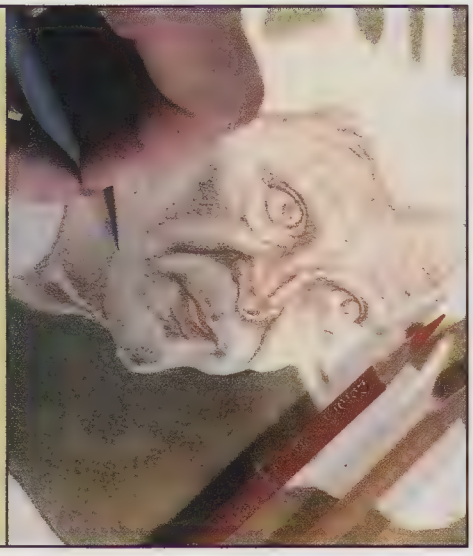
9 To create a feathered texture on the wings, Gabor lightly scratches away pencil wax with a No. 16 X-Acto blade taking care not to scar his drawing board. He fills in scratches with strokes of Berol white so the paper is not exposed.

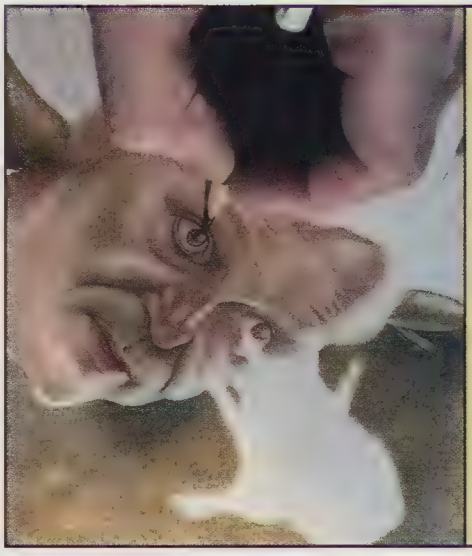




11 Satisfied, Gabor begins the blending process on the face with Prismacolor light flesh. The circular motion is important. "If I blend in the direction of the strokes, the pencil lines tend to show through he explains.

10 Starting work on Lorenzo's head, Gabor first covers the face with light strokes of raw umber. The eyes, nose and mouth receive additional layers of scarlet lake. The shadow on Lorenzo's beard is created with slate gray.





12 After the initial blending, Gabor goes back into the face to darken areas around the eyes and further model the form. Here he uses a black Prismacolor pencil to model the eye.

the curl rather than in parallel strokes. He then added additional coats of sepia, brown and black. When he was ready to blend the colors, he did so along the lines of the hair, rather than in circles. (See Figures 13 and 14.)

When the artist was happy with his drawing, he worked over detail areas once again with the 3-B mechanical pencil. The graphite produces a very black tone perfect for details. With graphite, he outlined Lorenzo's head and wings, and light lines on the sun. He also used graphite around the eyes, nose and mouth. (See Figure 15.)

When he was finished, he cleaned off the white border around the drawing with a plastic eraser. He then sealed the drawing with a generous coat of Krylon workable fixative. (See Figure 16.) "Actually, I know I use a lot more fixative than I need," Gabor says. "But colored pencil oxidizes if you don't fix the page, and I like the glossy surface that I get when I bomb it." From sketch to final coat of fixative, the drawing took two ten-hour days to complete.

Once a drawing is finished, Gabor generally finds himself racing to the post office in order to get his art into an Express Mail package. The Lorenzo drawing was no exception. Although Gabor was tempted to send the caricature via Lorenzo's embattled Eastern shuttle to *Regardie's* headquarters in Washington, the artist found the cost prohibitive. It would have been a nice touch. ■

Thatcher Freund is a staff writer for New England Monthly *magazine.*

13 For Lorenzo's wavy hair, Gabor abandons every blending principle he has taught himself. He lays hair down strand by strand with Prismacolor sepia, drawing in the direction of the curl instead of in parallel strokes.

14 Gabor then adds additional coats of sepia, sienna and black. Mistakes are corrected first with a knife and then with a plastic eraser, which must be applied lightly to avoid clotting the wax-based layers of pencil. He blends along the lines he has created in the hair.

15 Gabor works over detail areas once again with the mechanical pencil. The lead produces an extremely black line. This brings out areas like the eyes and allows other areas to recede. As a final touch, the artist also outlines the head, hands and portions of the wings.

16 When the drawing is finished, Gabor applies a heavy coat of Krylon workable fixative to seal the drawing. Otherwise, he has found, the colored pencil oxidizes quickly. From sketch to finish, the drawing took two ten-hour days to complete.

Reflectance and Translucence

Producing convincing illustrations with depth is possible using today's advanced drawing programs.

By Simon Tuckett

The more movies we see, the more discerning we become. Think of the last time you saw the original version of "King Kong." The effects probably struck you as a lot more tacky than when you saw it the first time. However, some films, such as "2001: A Space Odyssey," are made with such painstaking accuracy and detail that, twenty years later, their effects are still beyond reproach. The same can be said for electronic imaging. Early efforts in computer illustration look obvious to us today, mainly because of their lack of depth. However, technology has afforded us the hardware and software that better accommodate subtle illustration work. This article details the techniques that will allow you to quickly build dimensions into your art through manipulation of tone and line.

SHADOWS

Shadows can be used for far more than just describing how light falls on an object. They can suggest contrast, depth and an emphasis that goes beyond what one can achieve with composition alone.

SIMPLE SHADOWS A good place to start is with simple shadows. How many times have you seen a shadow that is merely a grayed out version of the object casting the shadow? (See Figure 1.) Computers make it so easy to drop shadows off shapes that most of us use the effect far more than we should. When used, it frequently appears coarse, giving little attention to how objects obscure the light that falls on surfaces beneath them. Most illustrators recognize that if a shadow falls onto a hard surface, the shadow will be softer, depending upon the distance that separates the two surfaces. In computer illustration, this effect can be achieved by progressively scaling down and darkening copies of the host object. (See Figure 2.)

One of the unfortunate results of this technique is that the corners produce such a sharp visual line as they run through the tones that the effect of a softened shadow is often lost. The best way to create the effect is to curve the outer corners and use a blend tool to produce the ramp between two corners. First, define the ramp start point with (in this case) a round-cornered rectangle of white; then, define the second shape (this time another round-cornered rectangle of 50 percent gray and a corner radius of 0.1 points). By blending between the two shapes, you can achieve a feathering on the corners of the shadow. (See Figure 3.)

SIMPLE SHADOWS IN ACTION This same technique was used to provide the illusion of depth on a cover illustration for a Canadian acoustics magazine. (See Figure 4.) The illustration symbolized proposed legislation on industrial noise pollution. Where the manuscript shadow shows on the gear, it is more harsh, suggesting a closer relationship to the gears underneath than to the background, which has been treated with a soft-edged shadow. Softening shadows in this way is a technique that should satisfy even the most particular art director.

COMPLICATED SHADOWS A similar pattern is followed for more elaborate shadows. Blending is a complicated process. It can also produce files of enormous size. While producing your artwork, it is often a good idea to do mini-blends to pre-visualize just how the artwork will look. A blend of a few paths will accurately test how the final blend will look. Four paths will move on screen much faster than one hundred.

Pre-visualizing a blend is usually a case of testing whether the blend fits into the area where it starts and if it provides enough contrast with the area that surrounds it. A reasonable contrast can be achieved by assigning a range of at least 20 percent between the background and the darkest point in the shadow's level. In practice, this would mean that if the background is a 20 percent value and the object casting the shadow is white, then you could put a shadow in between the two that starts at 20 percent and moves up to about 50 percent. (See Figure 5.)

In the drawing of a brick wall shown in Figure 6, it was important to suggest that the spilled-over mortar had not been removed from between the rows. With that in mind, I chose to place shadows in a darker version of the brick color just underneath each course of bricks. The major difficulty here was that each of the bricks had an uneven color to it. Patches

Quick and Convincing Completed over one weekend, the artwork at right was completed using Gridmaker, Adobe Illustrator 88 and LetraStudio, as well as the assembly, splicing and shearing techniques described in this article.

of darker color were randomly placed on each brick. The key to making this work is to be sure that the dark smudges never intersect with the shadow of the mortar. In the illustration, the shadows only appear to be translucent. In fact, they are very opaque.

REFLECTIONS

The way in which reflections are treated on surfaces has a tendency to display just how opaque an image is. The most useful tool in creating reflective surfaces is the blend tool. In using it one should keep in mind that reflections created with this tool will always be smooth. It is very difficult to build an erratic or random image into an object-oriented reflection without drawing each individual bump and dip. The blend tool operates on a strict set of rules that cannot be broken. Reflectance can only be achieved by using this set of rules to your advantage.

While creating the illustration of the clock shown in Figure 8, I chose to assign the reflective surfaces last. Just prior to the application of these surfaces, the image looked remarkably flat and two-dimensional. (See Figure 7.) Later, with sheens, shadows and blended highlights built into the image, the clock took on a much more tangible appearance. (See Figure 8.)

THE IMPORTANCE OF DETAIL

One of my art teachers always drummed the same message into me: Put more detail into an illustration than you think is necessary because it is the subtle nuances that reflect the quality of an illustration. Although he was referring to pencils and paintbrushes, cursors and mice benefit from the same advice.

To insert those subtle nuances into your object-oriented artwork, you have to have a full and constant awareness of the opacity of the work you are producing. A reflection has to be built right on top of the surface on which the reflection sits. To determine just what the reflection looks like, one must study the way the light reflects off the object in real life and then apply both the principles of an opaque drawing environment as well as the rules that govern blending. For example, one blend should never cross another without good reason.

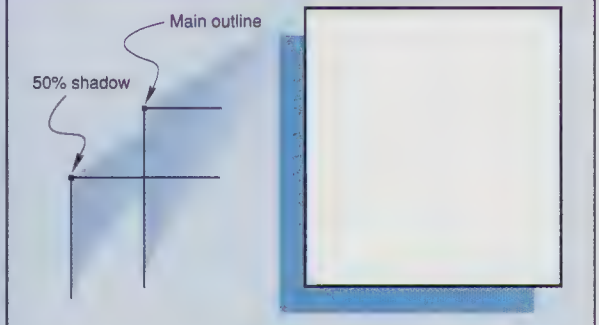
TRANSLUCENCE

Achieving a translucent effect is a combination of all the techniques described above. Once again, the rules change. This time the idea is to achieve an image that appears as though one thing can be seen through another. Fortunately, modern computer illustration software can help us determine just how to make it work. Contrary to what many people believe, there is no simple trick to it—just a lot of hard work. However, there are ways to get the most from that hard work.

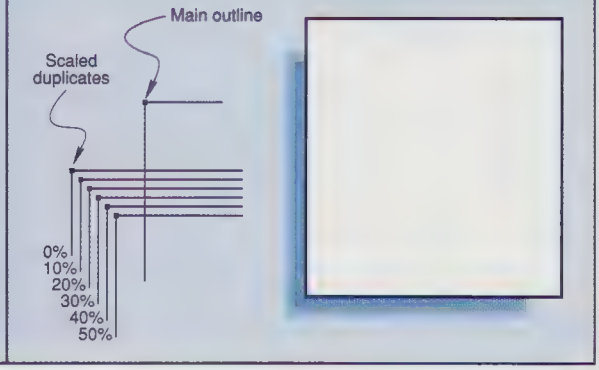
One of the key components in designing a translucent illustration is deciding just what tones will be used in the final image. This is never more critical than in color illustration where slight shifts in color can be quite misleading. The following example shows how to produce guides for your work that you can follow during moments of indecision.

LATE ASSIGNMENT One Friday afternoon, I received an assignment to produce a cover illustration to communicate the magazine's lead story about producing color separations on microcomputers. The task was to produce an image that showed an

1 The simplest shadow in microcomputer graphics is affected by duplicating the original object, offsetting it and changing its density level.



2 Softer shadows can be achieved by scaling down duplicates of the original object and progressively darkening their tones. Note the diagonal line in the corner of the shadow.



3 The most aesthetically pleasing shadows are those that are based on round corners. The softness of the ramp into the dark tones attracts no attention while still bringing the original object to the forefront.

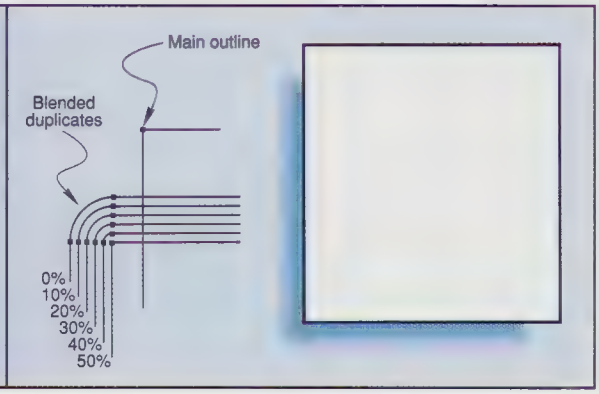


image being separated into the four process colors as it passed through a disk. First, the drawing was sketched out on paper. Then the perspective on the image was roughed out using the same techniques mentioned in "Simulating Perspective on the Mac," Vol. 4, No. 6, page 110. Having generated the grid for the disk in GridMaker (Folkstone Design, Inc.), the grid could then be used to calculate the vanishing points on the artwork. Using these vanishing points, rough outlines for the three component pieces (the initial page, the disk and the separations) were drawn and filled with color. (See Figure 9.)

At this point, the main colors for the illustration were calculated. Perhaps the most important thing was to choose colors rich enough to still look good when faded to almost white. To check this, a small bank of color chips was drawn in an unused part of the drawing. Each of these blocks was blended with a white block to produce a stepped ramp with only three intermediate stages. I made sure that these colors were the ones I wanted before proceeding with the drawing. Changes to the color scheme later would have been both difficult and time consuming.

ASSEMBLING THE PIECES While this was being completed, a friend delivered a quick sketch of a woman in a cloak. The sketch was immediately scanned, saved as a bitmap file and automatically traced in Adobe Illustrator 88. All the original black lines remained and a few were added. The intervening areas were filled with blocks of color. (See Figure 10.) A copy of the image was then sheared to fit into the angle of the page entering the disk.

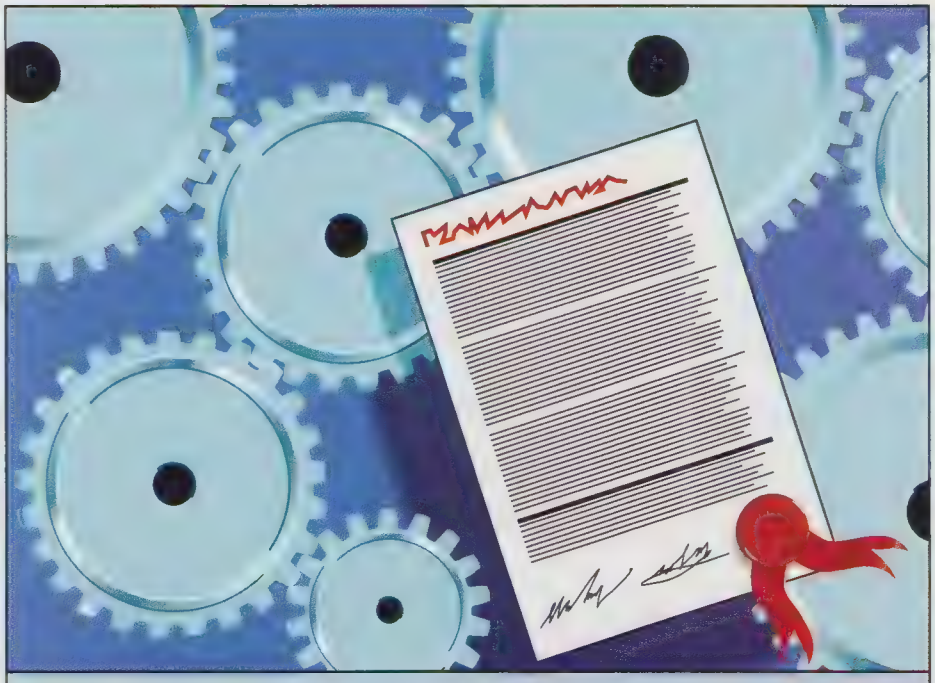
The type for this page was set in LetraStudio and then rotated and modified to fit the perspective guidelines for the page. Large screen prints were taken of the type (on the Macintosh, Command-Shift-3) and then traced in Adobe Illustrator to make it possible to modify the character shapes a little. Having completed the page, it was copied since it would form the basis for several more parts of the illustration.

At this point, the art was blocked out in more detail. This enabled me to determine the overall color values for the object. I paid particular attention to the left edge of the disk, choosing a value that looked significantly different than the front of the disk so that any translucent effect would be noticeable when placed on top of it. (See Figure 11.)

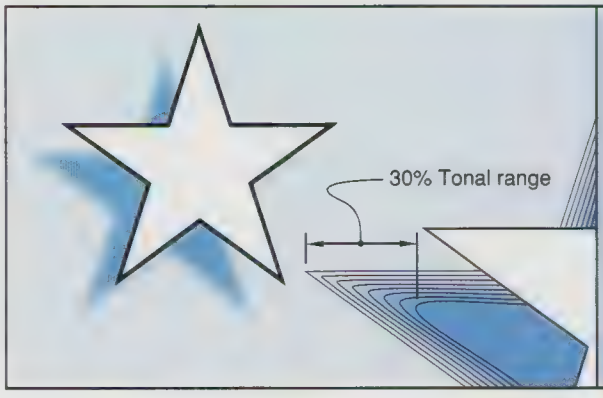
Returning to the page in position, I could start drawing in the translucent parts of the image. Rather than draw them over the top of the illustration, I chose to splice the existing paths. (See the accompanying sidebar, "The Art of Path Splicing.") This meant hiding all the parts of the disk and background while working only on the page with just two guidelines to determine just where the translucence should appear. Splices were made all down the side of the disk as well as the front. To amplify the effect of the lighter tones, I chose to have the edge of the disk lighter than the front.

PATH SURGERY Path splicing is a very integrated operation. You dissect one path and join the pieces up to produce two paths; then, to make them visible, their colors are immediately changed. Therefore, it is a good idea to bring up another (Preview) window on screen so that one can constantly preview the work while editing the paths. Constantly monitoring your work cuts down on backtracking.

(Continued on page 108)



4 Here is a magazine cover where the interplay between the harsh shadows (on the gears) and the soft shadows (on the background) effectively conveys the distance between the objects illustrated.



5 A standard, effective shadow should cover about 30 percent in the tonal range. This range will provide sufficient contrast between the background and the deepest part of the shadow to highlight the object creating the shadow.

THE ART OF PATH SPLICING

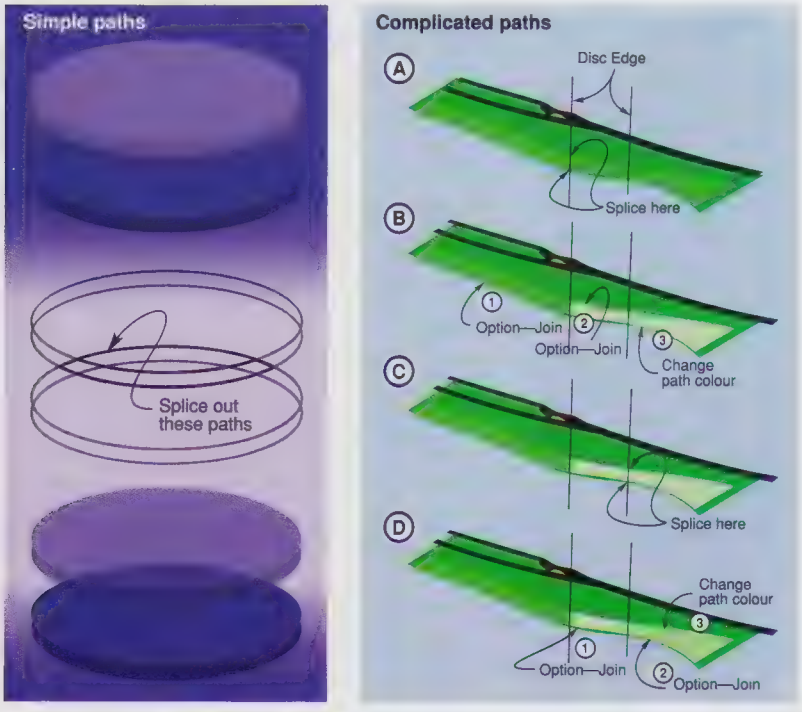
Path splicing is a very tricky art. For one thing, it requires tremendous discipline and for another, one should be able to maintain a functional short-term memory. In other words, you can get lost. What makes it so rewarding is that you can do amazing things with overlapping paths. You can create images that appear to be transparent as well as translucent.

Using a very simple example, we can see just how the splicing process works. Imagine two disks, one floating above the other. In the figure at left, the top disks are very opaque. To make the upper one appear translucent, we need to take care of the two faces where they intersect. Since the top disk is lighter, we can choose a value that is somewhere between the two disk colors for the translucent segments. We must also choose values that display the difference between the two faces of the top disk.

IT SLICES, IT DICES

To create the new objects, there are two methods. We can either redraw them as new objects on top or we can duplicate all the paths concerned and remove the unwanted parts. This second alternative is by far the most accurate but it is also a more complicated process. Time to practice. The paths are copied to an unused part of the drawing and the first two splice points are made at the intersection of the top objects and those beneath. The spliced paths are hidden and the unwanted parts grouped and sent to the back to continue as a guide for further splicing of those paths underneath. Cutting paths with the scissors is always best done at a very high enlargement. It is best to be more accurate than you think is necessary.

Having removed all the unwanted paths, you can now join up all the little pieces of those that remain, building objects that have exactly the same curvature as those underneath them. Once again,this can be done by selectively hiding and showing them. (Many situations force several points to be on the same spot at once; Illustrator 88 allows you to only join two points at once, hence the need to show and hide paths.) Tip: If there are two anchor points remaining on a complete path, you can save a lot of hassle by selecting the path with the option key and requesting "Join" from the Arrange menu. Once complete, the two objects can be brought back to the main illustration and placed on top in the appropriate spot. (See the lower disks.)



Simple and Complicated Paths With simple paths (left), the most accurate way to create translucent areas is to use existing paths and splice them into new shapes. Always work on copies of the original paths. With complicated paths (right), the situation is similar, merely a case of splicing two points on an original path (A) and then using the Option-Join command (B1 and 2) to create two independent paths which can then be assigned different color values (B3). The same procedure is then performed on another path (C and D).

INCREASING COMPLEXITY

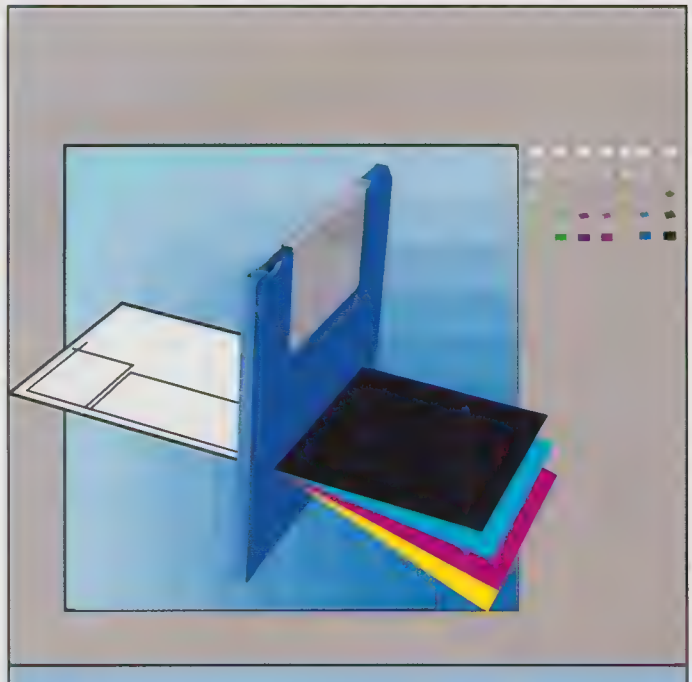
With complicated paths, a relatively methodical approach is still the best way to attack translucence. Taking part of our opening illustration, we can see that there are numerous paths and colors to attend to. (See the figure at left.) By splicing and progressively hiding the joined paths, though, this can be achieved quite simply. Paths spliced will always be those on top. Fortunately, the line over which the paths become translucent is a straight one so that, once we have made two splices, we can use the Option-Select-Join technique and the program will join those points up with a straight line.

Using those simple techniques you can create the most complicated images. The only trick is in knowing what effect you wish to achieve and using those techniques to get it—in addition to a quiet room—any interference is bound to make you forget where you were, and that is where the problems usually start.

6 In an opaque drawing system, blends of tones cannot intersect without creating straight lines. Smudges in the bricks are always separate from shadow areas.

7 Building reflectance into an illustration is more than just applying highlights to objects, as this illustration, shown before blending, suggests. The art looks stark and lacks a three-dimensional appeal.

8 With blends in the artwork, the highlights become an integral part of the object's surface. The frequency of the paths in the blend is determined solely by the final size of the illustration.



9 With the disk artwork blocked out, colors for the illustration are evaluated in the top right corner of the artwork as a series of small ramps. When the interplay between the tonal values and tints appears satisfactory, the illustration can continue.

10 A quick black-and-white brush illustration is scanned into the computer and then auto-traced in Adobe Illustrator 88. The tracing must then be edited to ensure that the brush stroke outline is a series of complete paths that can be filled with black. New paths are drawn inside that black line and are filled with the flesh tone and the costume colors. The brush-stroke paths are then moved to the front. Once completed, a copy of the figure is sheared to fit into the perspective of the illustration.

11 With all the major elements in place, the illustration of the disk can proceed. The tonal values on the disk edge and front are modified enough to provide plenty of contrast. This is necessary to emphasize the translucence in that area of the illustration. Other portions of the disk illustration can now be worked on without interfering with any of the other major elements.

12 With the colors fixed, a small chart was created to assist in the production of the illustration. Colors were also named so that the chart could be printed in black and white and still be used as reference.

Colour Guide Chart

	Base Colours	CMYK	Disc Edge	CMYK	Disc Front	CMYK
DkGr		80,0,100,5		40,0,50,2.5		60,0,75,3.7
LtGr		40,0,50,2.5		20,0,25,1.2		30,0,37.5,1.8
DkPu		60,100,0,30		30,50,0,15		45,75,0,22.5
LtPu		50,92.5,0,0		25,46.2,0,0		37.5,69.3,0,0
Oran		5,40,60,0		2.5,20,30,0		3.7,30,45,0
Blue		100,50,0,0		50,25,0,0		75,37.5,0,0
Blk		30,30,30,100		15,15,15,50		22.5,22.5,22.5,75

(Continued from page 105)

At this point it was prudent to re-evaluate my color guide. The swiftly produced bank of color chips became a small chart of the CMYK values I could refer to on screen. (See Figure 12.) This chart, while looking more complicated than the former set of chips, actually had fewer colors in it, just those necessary in the illustration with the CMYK values written out beside them.

Having completed all areas where the two images overlap, a quick check was made to ensure that all areas of the page had been completed. (See Figure 13.) The next stage was to finish the disk illustration by including as many small nuances as possible, including highlights on corners, small lines and sheens.

BREAKING THE RULES While creating moiré patterns in color artwork is usually something you want to avoid, they can sometimes be used to your advantage. While working on the steel shield at the top of the disk, I forced a moiré pattern to achieve a look of brushed steel. This was done by putting a ramp of tone into the shield and then placing a blend of lines (that matched the perspective axis) that was equal in value to the overall tone placed on the shield. In this way, the lines were only visible in the center of the shield. At this point, they were so close together that they appeared in a moiré pattern which resembles brushed steel. (See Figure 14.)

With both the page and disk now complete, only the separated pages and the background required work. By duplicating and further shearing the page, I was able to create the layers of colored images. The work was made easier by virtue of the fact that there were very small amounts of the cyan, magenta and yellow pages visible. Redefining the colors on these pages was merely a case of selecting the objects on the yellow separation, for example, and removing all inks except the yellow in the paint dialogue box. To give the pages more depth, I placed soft gray shadows between the pages.

FINAL TOUCHES Generating the background was also quite simple. I created a ramp from a small white triangle in the top left corner of the image to the center, and then another ramp that went from the central color down to a dark blue in the lower right. The orientation of the background had been chosen to achieve the most mileage from the depth evident in

CHOOSING COLORS

When it comes to choosing colors for your translucent artwork, there are a number of important issues to consider.

ARE THE BASE COLORS FIXED? Is there any likelihood that you will be making changes to the basic color scheme in the near future or are you satisfied? If you plan to make changes, be prepared to reassign all the colors in the transparent areas as well.

WHAT COLORS? Your transparent areas are going to be difficult to paint because you will have to calculate what one color looks like when seen through another, right? Not so. Look at one color through another and you are likely to get "mud" anyway, so forget reality and aim for the impression of translucence. Try a lighter version of the top object. Screen previews will be sufficient to tell you whether it works.

ARE THERE OTHER CHOICES? Two of the simplest choices are often overlooked: Use black and white or lighten up a color. You can always multiply each of the four component process colors by a percentage. For instance, 75 percent of each will produce a color that appears to have more white in it. The easiest way to do this is to have the computer calculate the percentage by taking two objects, one in the base color, the other white, and blending between them. Bringing up the paint specs dialogue box for the tone in the blend you like will tell you what the percentages should be. To darken a color, you can always add black. Be warned, you run the risk of moiré patterns if your black component exceeds 30 percent. There will be occasions, however, when a 40 percent black in the color will work perfectly.

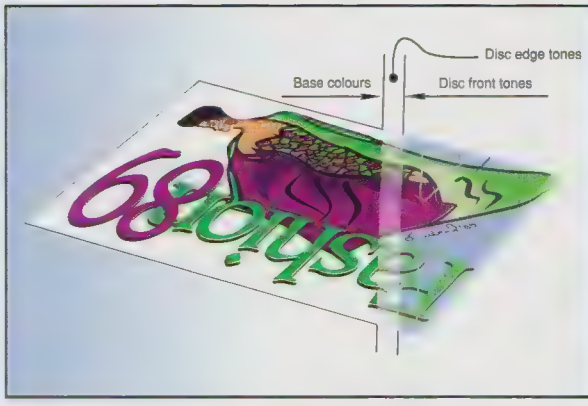
TO RAMP OR NOT TO RAMP If your transparent area has a ramp or blend underneath it, be prepared to ramp that area as well. I will do anything to get around this, but not because I'm timid. It is just a lot of unnecessary work in most cases. If it does become necessary, your blends will most likely have to be contained within a mask so that they have very definite edges. While it is best not to design artwork that fits within the capabilities of your tools, a few judicious decisions early in the process can save you a lot of headaches later. Look again at the opening illustration and you will notice that all but one of the ramps sit comfortably outside the area of the transparency.

the illustration. It would also make the art pop off the page. (See the opening illustration.)

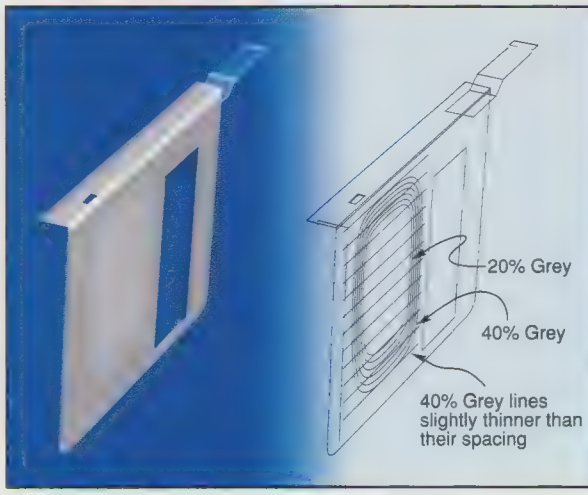
The work was completed in 14 hours at the computer, in two sessions over a weekend. Of course, rendering the same artwork with an airbrush would have taken much longer. A facsimile of a black-and-white laser print was sent to the art director at 9 a.m. Monday and, ten minutes later, after gaining approval for the piece, I telecommunicated the file to his modem so that he could integrate the artwork into his cover layout and separate it.

Upon completing the artwork, I was struck with a tremendous feeling of satisfaction at having completed a difficult illustration so quickly. But I was also pleased that I had been able to take the time to pay attention to minor things that the audience may not actually notice, but will certainly appreciate. Nuances which give the artwork that extra longevity—surely that is what they do in the film industry, so why not in illustration? ■

Simon Tuckett is the director of Creative Services for RoboShop Publishing Ltd., a Toronto-based electronic design studio which uses the Macintosh to produce graphic design for the advertising and corporate markets.



13 Translucent portions of the image were created along the lines of the disk's edge. Most of the splicing was done at the highest enlargement to ensure accuracy.



14 To suggest a disk shield of brushed steel, a moiré pattern was created using a ramped area that went from dark to light. Over this was laid a series of parallel lines in the background tone of a line weight that was just slightly thinner than the distance between each line.

Graphic Design to Industrial Design: Entering The Third Dimension

What you should know before you consider taking your product idea to market.

By Lisa Friedman

You're a graphic designer. A lightbulb goes off in your head. It's happened before, only this time the lightbulb illuminates an idea for the design of a three-dimensional object, a consumer product, in fact.

You wonder how far you can go with the idea—after all, you're a graphic designer, not an industrial designer. Hell-bent on seeing the idea become real, you make preliminary inquiries and do some research. Here is what you find out.

THE PRODUCT DESIGN CYCLE

Here is what the "normal" design and production cycle includes, according to Peter Bressler, president of the IDSA (Industrial Designers Society of America) and principal of the Bressler Group, a Philadelphia-based product design consultancy:

- intitial market research
- product planning
- product definition
- concept development
- refinement
- prototyping
- evaluation research
- final documentation
- tooling
- production set-up

The normal production-development cycle consumes two years— that excludes, of course, advertising, marketing, and distribution phases.

ESTIMATING COSTS When it comes to anticipating what the expenses will be, Bressler lays it on the line: "If somebody thinks he's going to get any product on the market for under $100,000, he's out of his mind." That figure is obviously rough; it's designed to cut through any illusions an entrepreneur may have about the capital needed to see a venture happen. The time spent on design accounts for only about 10 to 20 percent of the cost of making the product.

Organic Wave This chair, constructed from molded plywood, acts as a contrast between the architectural environment and the humanistic form, according to designer Marc Nugent.

HOW TO GAIN EXPERIENCE

To fill the information gap, some designers may choose to get more experience with products before tackling their own. Some of the different contexts for gaining exposure to product design are:

- Working for a graphic design firm with some 3-D projects;
- Offering graphic design skills to a design group that does 3-D work and graphics—those firms sometimes hire graphics people on an as-needed basis;
- Sharing office space with a product design consultancy or similar firm.

TAKING A LOOK AT RAW TALENT Taking a step back and examining how 2-D and 3-D designers are generally oriented helps evaluate how the product-design process is likely to feel to a graphic designer. Steven Yarnall, Director of Graphic Design at the Philadelphia firm of Geddes Brecher Qualls Cunningham: Architects, has an academic position that gives him an interesting perspective; he teaches graphic design to junior-level industrial design students at Philadelphia's University of the Arts. He finds industrial designers-in-training more technocratic in nature than graphic designers at the same level. Yarnall describes industrial designers as people who, as kids, took their toys apart; miniature graphic designers were more likely to have drawn beautiful pictures of the same toy.

Dave Law, a veteran industrial designer based in New York, sees design talent in more generic terms. He says simply, "If you've got it, you've got it"—and there is no reason for a graphic designer's skills not to translate to product design as long as he or she masters the knowledge of areas as specific as tooling, plastics, forming, molding, and mechanisms.

A LOW-BUDGET APPROACH

There are more modest alternatives to creating manufactured products on a national scale, as New York-based designer Marc Nugent has discovered. Nugent earns his bread and butter as a freelance graphic designer; his spare time is spent on Future Classics, a product-design venture he launched five years ago.

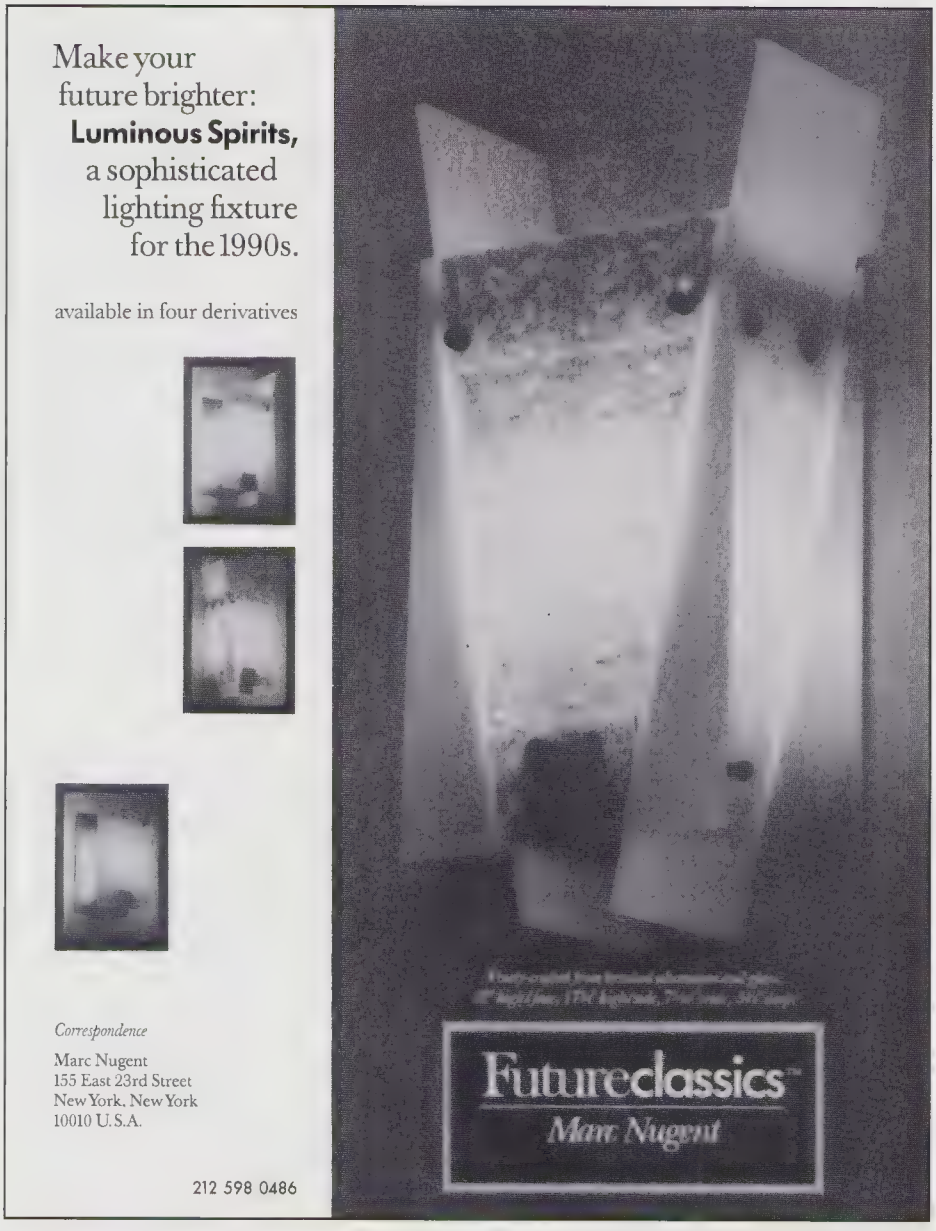
Nugent's industriousness began with lamps. After developing models and prototypes for various clients, he thought, "I can do this myself." Soon it became an obsession, he admits. At first the lamp was completely handmade. And Nugent realized a critical fact of the product-design process: A completely handcrafted piece is closer to art—sculpture perhaps— than an industrial design product.

Nugent could afford production because he made sure that no components of the lamps were sent out for machining. Early on, he assumed responsibility for most of the production himself: He installed a drill press in his living room.

Manufacturing and marketing Future Classics products are still in the seed stages. To avoid competing in the retail market, where price-points are lower and therefore inappropriate for the relatively high-cost product, Nugent targeted a niche within the wholesale market: interior designers, decorators, lighting consultants, and architects. He runs ads in the architecture trade magazines and sells directly to professionals who specify lighting for selected clients. With the approach that he has taken, Nugent has committed himself to giving Future Classics a long run before he expects to see substantial returns.

LEAPING MORE HURDLES

As if the start-to-finish process was not complex enough already, there are sometimes added obstacles to be aware of along the way. For some products, such as Amer-



The Graphic Advantage A distinct advantage to possessing both graphic and industrial design skills: creating collateral pieces to market one's own products—in this case, Marc Nugent's lamps by Future Classics.

ican-made chairs made for the contract furnishings market, rigorous testing may have to take place before manufacturing can be approved. For example, the prototype of a chair undergoes what amounts to a torture test devised by BIFMA (the Business and Institutional Furniture Manufacturers Association). The chair must meet engineering standards for product safety—or it won't get produced.

BUSINESS/LEGAL CONCERNS

Dedicating considerable attention to business and legal issues—from the beginning of the project—reduces financial risks and maximizes returns. According to attorney Allen Rothman of Jessel Rothman P.C. in Mineola, N.Y., forming a corporation is a good idea because it can limit liability to creditors (vendors, suppliers, customers, and so on) to the assets owned by the corporation, thus protecting your personal assets from attack. Using a Subchapter S Corporation specifically can provide special tax benefits.

Another primary business decision is whether or not to be involved in the actual manufacture of items. The verdict will probably be no; the capital required to purchase machinery and finance material, labor and overhead costs would be too great. More likely alternatives are to license the design to or enter into a joint venture with a company responsible for manufacture. Your compensation under a joint venture or licensing arrangement can involve either a fixed fee, profit share or some combination of both.

However you choose to structure the venture, it is wise to formulate a "business plan" with projected revenues and expenses. The plan will help determine whether there is a realistic potential for profits.

GETTING A PATENT

Rothman, along with architect Thomas A. Kligerman, had an idea for a glass vase design. When it came to applying for a patent, they turned to another lawyer, despite Rothman's legal background. Rothman explains, "There are some esoteric rules relating to patents and trademarks. You can be hurt by a technicality if your application is not processed correctly. The patent authorities also recognize which lawyers are trademark/patent specialists —and seeing any of those lawyers' names on the application can add credibility." Working with a professional also cuts down on errors, which can only lead to lost time and the necessity to re-file.

Patent Pending Attorney Allen Rothman and architect Thomas Kligerman have a design patent pending on their glass vase.

The patent process entails filing an application along with a technical drawing that shows your product from a number of different perspectives. An initial drawing—in this case, a rendering by Kligerman —was sent to a technical illustrator for reinterpretation. The complete cost of filing (including the lawyer and illustrator) was $900. This cost can vary depending on the complexity of the product.

Rothman adds that "there are a range of other issues—including ironing out legal arrangements with any partners, acquiring financing, and purchasing business insurance—that call for detailed thought and planning. If you're contemplating a substantial investment, consulting a business or legal professional would be advisable."

PATENT DIFFERENCES

Washington, D.C. attorney Perry Saidman of Saidman, Sterne, Kessler & Goldstein, a firm specializing in intellectual property law, outlines more alternatives and intricacies. Some products, he explains, may require a design patent only, while others may need a utility patent alone. Still others call for both patents. Saidman describes the difference this way: A utility patent covers the structure and function of an article without regard to how it looks. A design patent covers the appearance of the object without regard to how it works. One pertains to function, the other applies to form.

Saidman urges his clients to think of a patent as a piece of property where the patent claims define the fence around the property. The patent examiner (at the Patent and Trademark Office) has an investment in giving away as little of the property as possible; the lawyer skilled in drafting claims angles to get the biggest possible fence.

Once the product is patented, the designer has the option of selling the patent outright for a flat fee or licensing it ("renting" it) to another party. The licensor (patent owner) receives royalties from the licensee in exchange for use of the patent. Royalty agreements vary tremendously; they can provide for the designer to be paid a percentage of net sales, gross sales, profits, or they can be paid at a flat dollar rate.

ALL THINGS CONSIDERED

Licensing alternatives, however attractive, do not tempt die-hard entrepreneurs like Marc Nugent. He comments, "I don't want to license the rights to my designs; I like working out the manufacturing prob-

lems. If I were to sell the design, I'd collect only about three percent of the sales or a flat fee . . . and, to tell you the truth, I really enjoy taking the financial risk." ■

MORE ON PRODUCT DESIGN

Information about particular disciplines within product design vary widely. For some industrial designers, contract furnishings and tabletop items are categorized as "fashion" products, while things like computers and hairdryers qualify as "hard" products. Some products are high-end, others low-end; some are slated to be used in many contexts, others limited to circumscribed (i.e., medical or industrial) applications.

But most full-fledged industrial designers would agree that basic 3-D design experience—like implementing signage, exhibitions or interiors, even though it involves 3-D conceptualizing, locating a fabricator, refining the design to meet the fabrication requirements and communicating with the fabricator to get the job done—is still not product design. Exhibits, for example, are commissioned, so development and production costs are covered by the client; the actual 3-D structure is designed for one-time use only; and the whole endeavor usually has a circumscribed beginning, middle and end.

The product, on the other hand, is not commissioned—all costs will be assumed by the designer. It is not limited to one-time use; it will be mass manufactured and, if fate allows, duplicated by the millions. And, although there is no way to predict how long the process will take, it will almost certainly be more time-intensive than the exhibition. All in all, the contrast is profound.

Lisa J. Friedman is an independent writer based in New York City.

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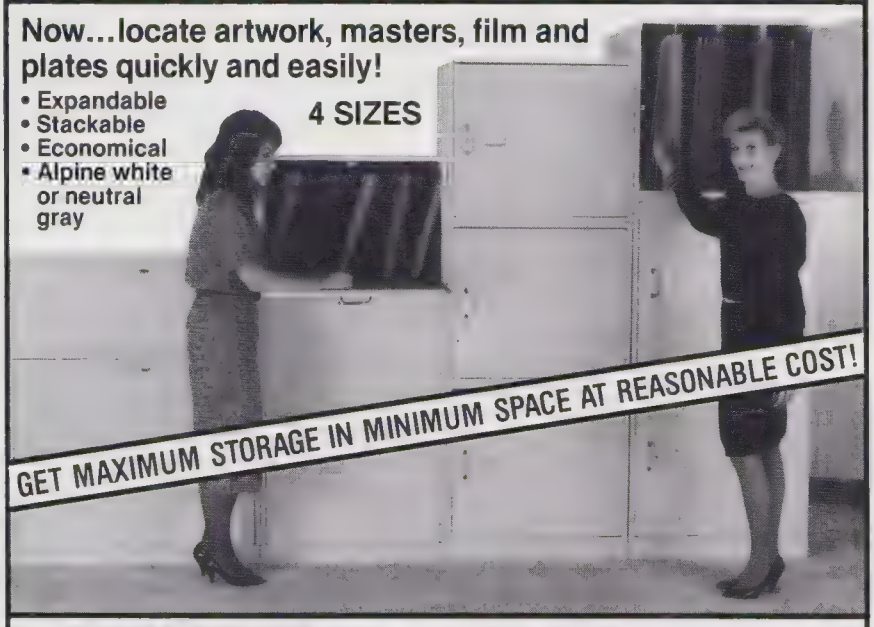

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The final installment of this two-part series covers the Slab Serif, Glyphic, Sans Serif, Script and Graphic categories.

By Allan Haley

Type can be a nebulous animal. A typeface's name may give no clue as to its family or origin—indeed, it may even be misleading. In addition, the cosmos of faces available today may appear to be very similar in outward characteristics, while each is actually very different. An easy-to-use classification system, then, one that does more than simply distinguish between serif and sans serif type, can be a valuable tool for graphic designers.

This article, the second in a two-part series, details a classification system that may bring up minor disagreements as to placement of a typeface or two, but can work as a general guideline for the typographic communicator. Use the accompanying charts for quick reference. (Also refer to the "ABCs of Type" article on page 124 of the May/June 1989 issue of *Step-By-Step Graphics* for part one of this same article. The categories covered in part one include Old Style, Transitional, Modern and Clarendon.)

SLAB SERIF

These typefaces have very heavy serifs with no, or exceptionally slight, bracketing. Generally, changes in stroke weight are imperceptible. Too many slab serif type styles appear to be sans serif designs with the simple addition of heavy (stroke weight) serifs. Slab serifs are exceptionally durable and tend to evoke a feeling of straightforward reliability in text composition. They are also very versatile display designs.

GLYPHIC

Typefaces in this category tend to reflect lapidary inscriptions rather than pen-drawn text. Contrast in stroke weight is usually at a minimum, and the axis of curved strokes tends to be vertical. The distinguishing feature of these typefaces is the triangular-shaped serif design; in some faces this is modified to a flaring of the character strokes where they terminate. In some classification systems, this one category is broken up into two groups: Glyphic and Latin. Latins are the faces with strict triangular-shaped serifs.

SANS SERIF

These are typefaces without serifs ("sans" from the French, meaning "without"). Although stone-cut versions of the style predate printing with movable type, the first typographic use of sans serif letters was in 1816 by William Caslon IV (a descendant of William Caslon, who designed the important serif type style bearing his name). Aside from their lack of serifs, the most distinctive quality of sans serif typefaces is their tendency toward an optically monotone stroke weight, a trait that some typophiles feel hinders the type's effectiveness in text composition—even more so than their lack of serifs. Early sans serif types were called "Grotesques" because they were generally regarded as being ugly. In England, they are still called Grotesques.

SANS SERIF—GROTESQUE These are the first commercially popular sans serif typefaces. Contrast in stroke weight is most apparent in these styles; there is a slight "squared" quality to many of the curves, and several designs have the "bowl and loop" lowercase "g" common to Roman types. These are the personality types of the sans serif series—some even have a kind of home-spun quality. In some cases, the "R" has a curled leg, and the "G" usually has a spur.

SANS SERIF—NEO GROTESQUE These are sans serif designs patterned after the first grotesques, but more refined in form. Stroke contrast is less pronounced than in earlier designs, and much of the "squareness" in curved strokes is also lost. Neo Grotesques can easily be confused with their earlier counterparts. Normally the most obvious distinguishing characteristic of these faces is their single bowl "g," more monotone weight stress, and lack of individual personality.

SANS SERIF—GEOMETRIC Simple geometric shapes heavily influence the construction of these typefaces. Strokes have the appearance of being strict monolines and character shapes are made up of seemingly perfect geometric forms. Geometric sans serif faces tend to be less readable than Grotesques.

SANS SERIF—HUMANISTIC These are sans

Working Guide The following classification chart identifies the nine basic groupings, some of which have been further subdivided for clarity. This chart can be used to help you identify a face, choose the best style for a particular application—or help you in substituting one face for another. Overall, it should provide you with some continuity to what is otherwise a confusing array of typeface designs.

CLASSIFICATION	COMMON FEATURES	TYPICAL DESIGNS
SLAB SERIF	• heavy serifs with slight or no bracketing • imperceptible changes in stroke weight	Aachen, Calvert, Cairo, City Egyptienne, Karnak, ITC Lubalin Graph®, Memphis, Rockwell, Serifa®, Stymie
GLYPHIC	• reflect lapidary inscriptions rather than pen-drawn text • stroke weight contrast usually minimal • axis of curved strokes tend to be vertical • triangular serifs (also known as Latins)	Albertus, Augustea, ITC Barcelona®, Bryn Mawr®, Congress, ITC Elan®, Friz Quadrata®, Icone®, Meridien®, ITC Novarese®, Pegasus, Poppl-Laudatio, Proteus, Romic, ITC Serif Gothic®
SANS SERIF		
Grotesque	• contrast in stroke weight most apparent • "squared" quality to many curves • several designs have "bowl and loop" lowercase "g"	Alternate Gothic, Franklin Gothic, News Gothic, Trade Gothic
Neo Grotesque	• stroke contrast less pronounced than earlier designs • single bowl "g" • more monotone weight stress • lack of individual personality	Akzidenz Grotesk, Folio, ITC Franklin Gothic®, Haas Unica, Helvetica®, Imago, Neu Helvetica® (numbered series), Univers
Geometric	• monoline stroke appearance • geometric character forms • less readable than Grotesques	ITC Avant Garde Gothic®, ITC Bauhaus®, Bernhard Gothic, Erbar, Futura, ITC Kabel®, Spartan
Humanistic	• readily apparent contrast in stroke weight • closely match roman design characteristics • may display strong calligraphic influence	Cosmos, ITC Eras®, Formata, Frutiger®, Gill Sans, Goudy Sans, Optima®, Syntax, Praxis®, Shannon®, Vela®
Square	• definite squaring of normally curved strokes • more latitude in character spacing • exceptional display designs	Antique Olive, Compacta, Eurostile
SCRIPTS	• imitate cursive writing • elegant or spontaneous	Coronet, Legend, Medici Script, Mistral, Poppl-Exquisit, Snell Roundhand®
GRAPHIC	• "catch-all" category • constructed rather than written appearance	ITC American Typewriter®, ITC Benguiat Gothic®, Britannic, Draco, Lo Type, Peignot, Pictor®, Radiant, Revue

CLASSIFICATION	COMMON FEATURES	TYPICAL DESIGNS
OLD STYLE		
Venetian	• diagonal cross stroke of lowercase "e" • minor contrast in character stroke thickness • heavily bracketed serifs	Bauer Text (or Schneidler Old Style), Centaur, Cloister, Deepdene, Kennerly, Italian Old Style
Aldine	• more contrast in stroke weight than Venetian old styles • lowercase "e" crossbar is almost always horizontal • serif bracketing obvious	Bembo, Cooper Old Style, Electra, Garamond, Goudy Old Style, Granjon, Palatino, Sabon, Weiss Roman
Dutch	• larger x-height than Aldines • darker color than Aldines • greater contrast in stroke weight	Caslon, Concorde, Janson, Plantin, Times New Roman
Revival	• "catch-all" category • character stroke relatively conservative • weight stress is inclined • bracketed serifs • generally not patterned after particular type, but may display old style traits	Belwe, ITC Benguiat®, ITC Berkeley Oldstyle®, Bramley, Breughel, ITC Caslon No. 224®, ITC Clearface®, Cooper Black, Edwardian, ITC Esprit™, ITC Galliard®, ITC Garamond®, Italia, Lutetia, Magna Carta, Poppl-Pontifex, Worcester Round, ITC Souvenir®, Trump Mediaeval, ITC Weidemann®, Windsor
TRANSITIONAL	• curve stroke axis generally have vertical stress • weight contrast more pronounced than old styles • serifs bracketed; head serifs obliqued	Americana, Baskerville, Bulmer, Caledonia, Concorde Nova, Fairfield, Garth Graphic, Leamington, ITC New Baskerville®, Orion, Perpetua, ITC Usherwood®, ITC Zapf International
MODERN		
Didone	• some have very slight serif bracketing, most have none • serifs not usually more than hairline weight • stroke terminals are "ball" shapes	Bauer Bodoni, Bodoni, Didot, Torino
20th Century	• share many Didone design traits, though not revivals • more stylized than predecessors	Auriga, Centennial®, Else, ITC Fenice®, Iridium, ITC Jamille™, Linotype Modern, ITC Modern No. 216®, Photina, Walbaum Book, ITC Zapf Book®
CLARENDON		
19th Century	• stroke weight contrast least pronounced • serifs tend to be short to medium length	Bookman, Cheltenham, Cushing Antique
Neo	• more obvious contrast in character stroke weight • more sophisticated than earlier Clarendons • serifs tend to be larger	ITC Bookman®, ITC Century®, Century Schoolbook, ITC Cheltenham®, ITC Clearface®, ITC Cushing®, Fortune, Itek Bookface, ITC Korinna®, Melior
Legibility	• contrast in stroke weight is minimal • serifs tend to be short • x-heights usually large	Clarion, Corona, Excelsior, Ionic No. 5, Modern, Nimrod, Olympian

serif designs based on the proportions of Roman inscriptional capitals and lowercase letters. In many cases, contrast in stroke weight is also readily apparent. Many claim that these are the most legible and most easily read of the sans serif types. They also most closely match Roman design characteristics and proportions. Many also display a strong calligraphic influence.

SANS SERIF–SQUARE These designs are generally based on Grotesque or Neo Grotesque character traits and proportions, but have a definite (and at times dramatic) squaring of normally curved strokes. They usually employ more latitude in character spacing than their more conventional sans serif cousins, and tend to be exceptional display designs.

SCRIPTS

This category includes typefaces that imitate cursive writing. Script typefaces come in all shapes and sizes. Some are very elegant and appear to be carefully drawn with a quill pen, while others are the essence of spontaneity. In the interest of expediency and efficiency, all scripts are grouped under one category. To do justice to these styles, over a dozen different sub- categories would have to be included, and since scripts are not used that much anyway, it doesn't seem necessary to give them undue exposure.

GRAPHIC

These typefaces defy "pigeonholing." They can look like letters cut in stencil, imaged on a computer terminal, or decorated with flowers. Their only shared underlying trait is that they have been constructed, rather than "written." (This is the other catch all category.) Some are excellent communicators, others are not. In fact, some pretty thin excuses for type design fall into this category. None of those, however, are represented here. ■

A regular contributor to Step-By-Step Graphics, *Allan Haley is the author of "Phototypography," and is contributing editor to* U&lc, *the International Journal of Typographics, published by International Typeface Corporation, for which he serves as executive vice president.*

Slab Serif

ITC Lubalin Graph Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Glyphic

ITC Barcelona™ Book

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Sans Serif–Grotesque

News Gothic Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Sans Serif–Neo Grotesque

ITC Franklin Gothic Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Sans Serif–Geometric

ITC Kabel Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Sans Serif–Humanistic

Goudy Sans Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Sans Serif–Square

Antique Olive

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Scripts

Coronet Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz1234567890

Graphic

Revue Regular

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GR24

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Ensuring Your Business' Viability

Self-employment has tremendous potential as well as drawbacks. Here is how to improve your chances.

By Cameron S. Foote

It has been widely reported that about two-thirds of all American small businesses fail within their first five years. There are no figures available for freelance creative businesses, but there is also no reason to believe they are far from the small business norm.

Thus, this article is dedicated to lowering the failure-to-success ratio for those breaking out on their own, and to making sure that you are in the one-third that becomes viable businesses.

THE NEED FOR CAPITAL

Compared to other businesses, a major advantage of freelancing is the small amount of start-up and working capital required. But "small" is a relative term, and if you focus on it too carefully, you may find out too late that what is small in business terms can actually be quite large in personal terms. So focus instead on the fact that you will probably need capital in order to become a successful freelance. And if you cannot raise adequate capital, your chances of financial success—indeed, of continuing to work as a freelance—will quickly be seriously jeopardized.

There are four basic reasons why a freelance needs adequate capital: 1) to cover start-up costs; 2) to provide income while getting established; 3) to smooth out income variability; 4) to cover unexpected expenses.

COVERING START-UP COSTS This is the most variable capital need, depending upon whether you are a copywriter, designer or illustrator, and upon your individual circumstances. For example, do you have a home office already well-furnished, or do you plan to move into unfurnished space in an office building? Have you accumulated professional equipment over the years, or will you need to go out and buy everything? There is a myriad of items—everything from desks to word processing computers to art supplies—that you will need to start your business.

SET-UP INCOME Authorities claim it normally takes a minimum of two years before any business reaches its full potential. Chances are it will take you at least that long to make the contacts and build the reputation that will assure you of stable, long-term business. Fortunately, however, during that time your income should steadily continue to grow, and within about a year, will probably equal your present salary. To cover the initial months when you have little or no income, and later, when the flow of cash still has not reached its pre-freelance level, you should have three months of pre-free-lance take-home pay readily available to draw upon.

A word of warning: Since this need is tied to your life style, you may be tempted to cut back on personal expenses to reduce the capital necessary. Although at first this sounds attractive, it is not wise. Most of us become accustomed to a certain income level, and it takes a long time to change spending habits. If you sincerely think you can cut back on expenses and thus reduce your need for getting-established capital, do it before you start to freelance. Do not wait until after you start freelancing to find out how difficult it really is.

SMOOTHING OUT INCOME VARIABILITY The day you start freelancing is the day the

Illustration by Craig Smallish

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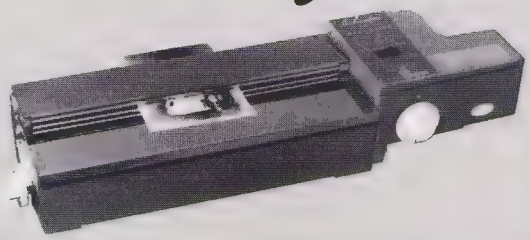

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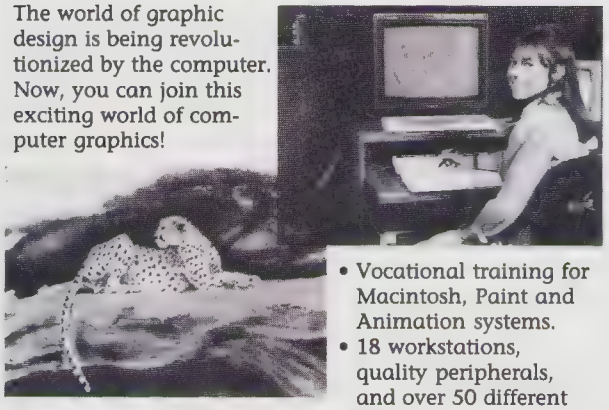

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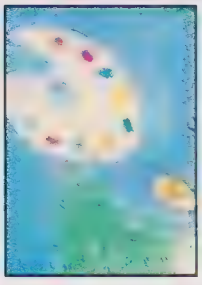
checks stop coming regularly. Henceforth, money will come occasionally in batches. Bills, however, will continue to arrive with the same distressing regularity as before. The fact that you are now freelancing and your income is irregular is solely your concern. Your creditors still expect to get paid on time. And, of course, you will wish to continue to live life as usual.

To guard against those times when there is a long stretch between checks, you should have capital equal to two month's salary set aside. Keep it in an easily accessible, interest-bearing account, drawing upon it when necessary and replenishing it as funds become available.

COVERING UNEXPECTED COSTS Failure to anticipate the unexpected can strongly affect the profitability of your business, and can even destroy it. No matter how hard you plan, the unexpected will occur—probably at the most financially disadvantageous time, too. For example, what would happen if you were suddenly laid up for two weeks? Or your car needed extensive repairs? Or you had to enter into expensive litigation?



For these and other eventualities, you must have adequate capital readily available. Just what adequate means is best defined by your own comfort level, but at the very minimum you should have a month's salary available to meet unexpected costs.

Totaling up all your capital needs shows that a minimum of six months of your present salary will probably be needed to assure your success as a freelance. Only about half of this need be in cold hard cash—the rest can be in the form of lines of credit—but the availability is critical to assuring success.

Because it often takes months to get paid, and because many of the advantages of freelancing, such as tax breaks, come later, it is possible to be quite busy and still find yourself falling behind. Adequate capitalization is the only way to keep that from happening.

LIVING WITHOUT

Now that you can estimate how much financial risk you will take in freelancing, consider how much psychic risk you take. Here is what you will most likely miss.

SECURITY You may think your present job does not have much security, but it is very secure compared to freelancing.

PAID VACATIONS If you bill your time at, say, $500 per day, every week you take off costs you $2,500 in lost revenue. That is $5,000 for a two week's vacation, not including how much you will spend. Thinking about it too much could turn you into a terminal workaholic.

SICK TIME Feel bad today? Tough. If you take the day off, your pay will be docked. Break a leg? Learn to work on crutches.

COMPANY BENEFITS In many companies, perks and benefits—health, medical, and disability insurance, subsidized lunches, expense accounts, retirement programs—can easily add a non-taxable 50 percent to the purchasing power of your paycheck. Henceforth, they will all be subtractions from your paycheck.

REGULAR PAYCHECKS Try as you will to make your income regular, you will find it impossible. For a month the mailman will only drop bills in your mailbox. Then one day he will deposit four fat checks. Can you accept this variability? Have you set aside enough capital to carry you through the lean periods?

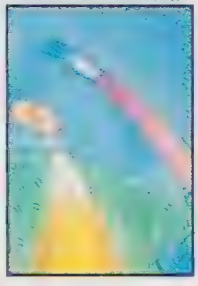
SOCIAL CONTACTS For most of us, the workplace accounts for much, sometimes most, of our social interaction and contact. Also, freelancing will probably cut more deeply into free time, so chances are your social life will suffer unless you work actively at developing it.

ABSOLUTE MUSTS

Certainly you can get by without following all the advice listed here. But make no mistake, every item listed here is important to building a strong, viable free-lance graphic design or illustration business.

BECOME A BUSINESS PERSON In a creative sense, being a freelance will allow you to do more of the things you like—to be less "commercial." But at the same time, you will also take on a new set of small business responsibilities—you become account representative, clerk, manager, worker, bookkeeper, and, yes, janitor. When stripped of all creative pretensions, freelancing is simply a small business which requires all the diverse skills of a business person.

ACT PROFESSIONAL A professional is someone who consistently performs in an efficient, businesslike manner—someone who puts reliability and customer satisfaction at the top of the list of priorities. Once you start freelancing, there will be no other person to review or clean up your work, and no one to present or make excuses for it.



LOOK PROFESSIONAL When someone else presents your work, you can dress in the way that makes you most comfortable. But when you call on clients, the way they perceive your work will be affected by the way you look. So dress conservatively and do not try to make a creative statement with your clothes.

BE ASSERTIVE Introspective, shy people are often very creative, but they do not make successful freelancers. This business requires cold-calling, bugging clients, making hard choices, dealing firmly with others. And when someone does employ you, they want you to take charge, to do what has to be done to assure that the job gets produced on time and on budget.

MARKET YOURSELF You will need to market yourself, either to generate enough or better business. It is a necessary time- and money-consuming expense.

REALITY STRIKES

Finally, as a freelance, there are certain things you will have to accept.

• It will take awhile to get established. Chances are you will have a flurry of initial business, which will taper off before it starts to build. This can be a period of psychological and financial hardship unless you are prepared. It will be a good two years before you are known well enough to have developed a stable business.

• Many calls will go unanswered. When you telephone from your present position you probably get right through, or your call is promptly returned. No more. As a freelance, you lose the recognizability, prestige and clout that comes with a job title in a recognized organization.

• Sooner or later you will get stuck. Despite your best efforts, not everyone you deal with will be professional, solvent and honest. Then, too, there will be occasional, valid disagreements about the quality and price of your work. The result is that every so often you will have a client who makes unreasonable demands, goes bankrupt, or just plain refuses to pay.

• Your future will be less flexible. Once you decide to be a freelance, your future will be even more closely linked to your creativity than it is now. This is not the path to take if you aspire to greater management responsibilities or value the occupational flexibility offered by many large organizations.

• You will work more intensely than ever. Freelancing is very intensive work. But with few or no distractions, disruptions, coffee breaks, phone calls, conversations and meetings, you will get more accomplished than ever before. ■

Boston-based freelance Cameron S. Foote is a former creative director at Polaroid who currently leads the popular nationwide seminar series "How To Make It As A Free Lance" and "How To Sell Free-Lance Services."

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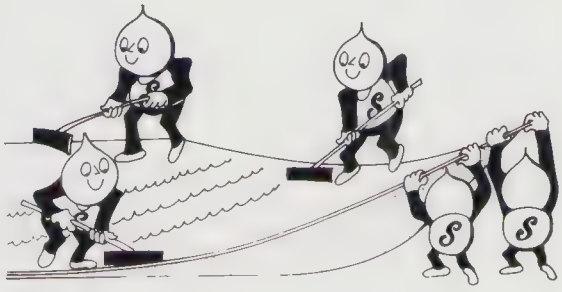

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METHODS OF THE MASTERS

Arthur Rackham: The Power of a Literary Imagination

Learn how this British artist used free-flowing pen lines and transparent watercolor to create works of timeless appeal.

By John Freas

The brilliant career of book illustrator Arthur Rackham continues to shine some 50 years after his death. No other illustrator of the 19th or 20th century has enjoyed Rackham's popularity nor matched his prodigious body of work. Immensely successful during his lifetime, the many titles his drawings and watercolors have enhanced are still in print, and the vintage editions are widely collected.

In all, Rackham illustrated more than 75 books, some with as many as 50 full-page color illustrations. Many of the books also contain spot drawings, headpieces, end-pages, tail-pieces and textual black-and-white drawings, all of which bear evidence of the artist's fantastic imagination.

Rackham's style of illustrating and the media he employed—his free-flowing pen work and mastery of transparent watercolor—were perfectly suited to the new four-color camera process of reproducing art directly from the original. (See Figure 1.) Unlike the work of colleagues who preceded him, Rackham's illustrations were not subjected to translation by a "middleman." Before the advent of photo-mechanical reproduction, book illustrators used a graphic technique, for example, etching, stone lithography, wood or steel engraving. If working in color, the original served as a maquette for a craftsman versed in interpreting the art onto wood, metal or stone.

Some of Rackham's predecessors, such as Walter Crane, Randolph Caldecott and Kate Greenaway, were also essentially draftsmen and watercolorists, but their work in reproduction is quite different than their original color illustrations. Some appear gaudy because of the brilliant and lurid quality of an oil-based ink used in chromo-lithography at that time. Other color printing techniques were more sympathetic to the artist's intent, most notably a wood block method of printing flat and subtle colors developed in England by Edmund Evans, a successful printer of Victorian children's books.

BACKGROUND

Rackham (1867-1939) was born into a middle class London family during Queen Victoria's reign. His career began in Edwardian times and carried well into the 20th century. His father was a prosperous civil servant in the Admiralty Registry; his mother the daughter of a college professor. Rackham was the fourth of twelve children. Two other Rackham children had distinguished careers: Harris was a classical scholar at Christ's College, and Bernard became a world renowned expert and author on ceramics.

At an early age, Rackham displayed a talent for drawing, especially for fantastic subjects. After secondary school, he was accepted at the Lambeth School of Art, taking a clerk's position in an insurance company to help meet expenses. While working and attending school, he found time to contribute drawings to the "cheaps"—the daily newspapers hawked on the city streets. Primarily, he made line drawings of prominent actresses, writers, sportsmen, politicians and nobility for the "Westminster Budget." At the beginning of his career, he also created advertising brochures and other commercial work, with routine and mundane results.

These early efforts did not seem at all indicative of the wondrous imagery and imaginative staging of the pictures for his first major book, "The Ingoldsby Legends," in 1898. It was in this book that Rackham's familiar style seemed to burst forth. The style and technique of these illustrations spurred the creation of drawings for some of his most notable work: "Peter Pan in Kensington Gardens," 1906; "Alice's Adventures In Wonderland," 1907; "Aesop's Fables," 1912; "A Christmas Carol," 1915 and his last illustrations for a new edition of "The Wind in the Willows," 1940, published posthumously.

RACKHAM'S TECHNIQUE

Rackham's fairies, witches, hobgoblins, anthropomorphic trees, tender children and fantastic settings have delighted young and old alike. His pictures are often crammed with detail and elaborate scenery, yet his masterful draftsmanship and control of media give the drawings visual acuity. The story being

Figure 1 Much the same as filmmaker Alfred Hitchcock would include himself in a scene, Rackham draws himself into the lower left of "As I was going to St. Ives," an illustration from "Mother Goose The Old Nursery Rhymes," 1913. Rackham's primary technique for illustration was black pen line supported by watercolor washes.

Figure 2 The human figures depicted in Rackham's illustrations were largely sketched from models. The artist often took liberties with gender, age and character when he adapted the sketches for use in his illustrations. While drawing, the artist often concentrated upon expression, as these two studies of children indicate. (Rare Book Department, Free Library of Philadelphia.)

Figure 3 Even in a picture crammed with detail, pattern, texture and action, like this illustration from "Fairy Tales by Hans Anderson," 1932, Rackham's technique is direct and economical (left). While John Tenniel, the original illustrator of "Alice's Adventures in Wonderland," 1865, created memorable characters in his spare pen and ink drawings, Rackham created a new series of pictures in 1907 that are equally fascinating (right). Notice here how the ink lines almost disappear into the watercolor washes.

told is visually convincing, and the real magic is in his economical directness. Detail is relegated to a bit part; the center stage is reserved for dramatic clarity.

SKETCHES The human figures depicted were largely made up from sketches drawn from models. These sketches were generic, however, since the artist always took liberties with gender, age, physical makeup and character. (See Figure 2.) One of his models said in an interview with a British periodical that "a young girl might equally well serve him as the Vicar of Wakefield or an evil old witch. I remember one who even acted as a dismembered corpse . . . "

Rackham had a large collection of period costumes and props that he used in combination with the generalized figure sketches. To those drawings, he added appropriate detail from his fantastic imagination and great visual memory.

INK AND WATERCOLOR Rackham's technique was deceptively simple: black pen line supported by watercolor washes on either illustration board or handmade watercolor paper. In his early work, the watercolor is heavily applied in comparison to the later use of delicate and decorative washes. With this no-nonsense technique, Rackham could work rapidly yet still achieve a complete breadth of expression. (See Figures 3 and 4.) While some of his black-and-white drawings were done in as little time as two hours, he normally allowed two days for a color illustration.

The draftsmanship that underpins his color, whether light-of-touch or of a more bravura pen, is the keystone of his style. It is over this linear structure that the additive color serves to create specific mood and description. (See Figures 5 through 8.) At times, the line seems to disappear as Rackham creates form and pattern with the watercolor washes. In some illustrations, the pigment settles into the recesses of the textured paper to create added dimension.

WATERCOLOR Rackham was also superb as a pure watercolorist. From his student days, he set aside time to produce fine watercolor landscapes. One was even accepted for exhibition at the Royal Academy and sold for two guineas. This dedication to the art of watercolor landscapes continued throughout his life.

Figure 4 In this illustration of "Wotan" from "The Rhinegold and The Valkyrie," (1910), the influence of "Jugendstil" or the Germanic version of Art Nouveau, is evident. Here, Rackham uses a more stylized line and simplifies detail.

Figure 5 Silhouettes, a favorite form of page decoration, are found throughout the books Rackham illustrated. Rather than simple abstractions, the artist seems to have executed an elaborate line drawing, then filled it in.

Rackham served on the Board of the Royal Water-Color Society and was vice president for three years. He also had a watercolor paper (What'Man, now Whatman) imprinted with his personal watermark—A.R. Of his affection for the medium, he wrote: "From the first day when I was given, as all little boys are, a shilling paint-box . . . from that day, when I first put my water-colour brush in my mouth, and I was told I mustn't, this craft has been my constant companion . . . Looking back I have one long memory of holidays and never one without my faithful friend."

OTHER MEDIA There are also examples of Rackham's use of other media, but these are fewer. (See Figure 9.) A painting titled "Into the Wood," reproduced in "Arthur Rackham's Book of Pictures," 1913, is in tempera. While the layering of color and firm brush work are wonderful, there are very few examples of Rackham's work in this medium. Perhaps it proved too time-consuming for his work in illustration. The artist also dabbled in oil paint, but most of the attempts are ordinary and self-conscious in comparison with his illustrations. (See Figure 10.)

INTENTIONAL AGING When studying the illustrations, one is struck by a quality of age-mellowing or darkening. Rather than a result of age vagaries or deterioration, this is an intentional part of his technique. (Refer to Figure 7.)

During the later decades of the 19th century and into the first decade of the 20th century, there was a movement in artistic circles to return to earlier motifs and manners. The Arts and Crafts movement, fueled in England by William Morris' Kelmscott Press, beckoned a return to Renaissance ideals of beauty and grace in all forms of art and design. The Pre-Raphaelite Brotherhood emulated the archaic, worshiped antiquity, and tried to influence and buffer popular taste against the banalities of the Industrial Revolution and the ominous approach of

Figure 6 The English countryside is the setting for "Peter Pan in Kensington Garden," (1906), acknowledged by some as Rackham's best work. Rackham creates mood through his direct pen stroke and subtle gray washes. (Rare Book Department, Free Library of Philadelphia.)

Figure 7 Creating an aged look—probably accomplished with washes of ochre, gray or umber watercolor—was an intentional part of Rackham's technique. The overall mellowing of surface is evident everywhere in this illustration except in the white of the moon. ("Hey! Diddle Diddle!" from "Mother Goose The Old Nursery Rhymes," 1913.)

20th century technology. In response to these conventions, Rackham toned and stained his boards before drawing with a warm wash—perhaps mixed with ochre, gray or umber watercolors—giving them an air of timeworn "authenticity."

A SAVVY BUSINESSMAN

Rackham's financial success as a book illustrator was considerable. He was a savvy businessman attendant to detail. He was explicit in how his work would be published and made sure the originals were returned to him after reproduction. If reused or reprinted, he arranged for satisfactory compensation. The artist staged exhibitions of the original illustrations in conjunction with the publication of a new book and sold his work in galleries.

He also felt the illustrator must not be a servant to the author, but an equal partner. In 1910, a London daily quoted him as saying: "An illustration may legitimately give the artist's view of the author's ideas; or it may give his view, his independent view, of the author's subject. But it must be the artist's view; any attempt to coerce him into a mere tool in the author's hands can only result in the most dismal failure. Illustration is as capable of varied appeal as is literature itself; and the only real essential is an association that shall not be at variance or unsympathetic."

Starting in 1905, most of his major books were issued in a special limited edition format aimed at the serious book collector. These books were printed on fine paper, often bound in vellum with elaborate gilt-stamping. Editions were limited to as few as 100 for some titles and as many as 1,000 for others. Rackham signed each one, and for a small fee he would even make a pen sketch appropriate to the book's content or characters on a preliminary page. For a more substantial sum, he would paint a small watercolor on the inside pages using what he called his "Chinese brush technique." These extra-illustrated volumes are especially treasured by collectors. (See Figure 11.)

THE POWER OF PICTURES Perhaps Rackham's illustrations live on because he believed so deeply in what he did. "I can only say that I firmly believe in the greatest stimulating and educative

Figure 8 Rackham used a variety of pen lines and strokes to achieve the form in his underdrawings. In a 1908 illustration from "A Midsummer Night's Dream," he combines broken, wispy lines with bold direct strokes to achieve the magical aura needed to depict this Shakespearean work.

Figure 9 In "The Haunted Wood" from "Arthur Rackham's Book of Pictures," 1913, Rackham used tempera. While the layering of color and firm brush work are wonderful, one speculates whether the amount of time necessary for this medium discouraged the artist from further usage. (Rare Book Department, Free Library of Philadelphia.)

power of imaginative, fantastic, and playful pictures and writing for children in their most impressionable years—a view that most unfortunately, I consider, has its opponents in these matter-of-fact days," Rackham wrote in 1934. "Children will make no mistakes in the way of confusing the imaginative and symbolic with the actual. Nor are they at all blind to decorative or arbitrarily designed treatment in art, any more than they are to poetic or rhythmic form in literature. And it must be insisted on that nothing less than the best that can be had, cost what it may (and it can hardly be cheap) is good enough for those early impressionable years when standards are formed for life. Any accepting, or even choosing, art or literature of a lower standard, as good enough for children, is a disastrous and costly mistake."

Edmund Dulac, Kay Neilson, Hugh Thomson and Edward Detmold, to name a few, were Rackham's English contemporaries. Each was successful and well-known, but he stands above all. His illustrations for both European and American classics provided him with a world-wide showcase. His books were often co-published in America and translated for European distribution. And whether he was working for an American audience or on the opposite side of the Atlantic, Rackham produced work of timeless appeal for all.

READING LIST

If you want to learn more about Arthur Rackham, you may want to consult:

1. Hudson, Derek, "Arthur Rackham, His Life and Work," Charles Scribner's Sons, 1960.
2. Larkin, David (ed.), "Arthur Rackham," Dover Publications, 1975.
3. The Arthur Rackham Society, 1417 Constance Avenue, Kettering, Ohio 45409. ■

Author John Freas is an illustrator, associate professor of illustration at Philadelphia's University of the Arts, and owner of Tamerlane Books, dealers in antiquarian, illustrated books.

Figure 10 This self portrait is a rare example of Rackham's work in oil. While quite competent, especially in its use of tone and juxtaposition of warm and cool colors, his "easel paintings" seem ordinary and self- conscious when compared with his illustrations.

Figure 11 A very elaborate "Chinese brush" watercolor Rackham painted on the half-title page of "Alice's Adventures in Wonderland." The sketch reflects Aubrey Beardsley's decorative influence upon Rackham. (Rare Book Department, Free Library of Philadelphia.)

SHORTCUTS

These timesaving tricks and tips will help you get the job out the door.

A STICKY PROBLEM

I just finished reading your article "Anatomy of an Art Kane Shoot" (Vol. 5; No. 3), and felt prompted to write. I was amazed at the complexity of preparations for the "Krazy Glue" shot, especially regarding the problem of gluing food on a tilted plate. Instead of trying to apply glue to food, I have hot-glued thumbtacks—pointed side up— to any slanted surface I wish to hang items on. Then the food (or whatever) is pressed onto the tacks.

—Roger Pribbenow
Madison, Wisc.

A Stick-Up Instead of affixing items to slanted surfaces by means of hot glue, as shown above in "Anatomy of an Art Kane Shoot," reader Roger Pribbenow uses hot glue and thumbtacks. (Photo by Marianne Barcellona.)

FRACTURED FRISKET

When I am transferring a large drawing to frisket for an airbrush rendering, I have found an easier method than wrestling with large sheets of frisket. I first section my drawing into 8 x 10-inch areas. Then, using 8 x 10-inch frisket sheets in my plain paper copier, I copy each section of my drawing. (I can also increase or decrease the size of my drawing at this point, making sure to accommodate new sizes with larger frisket sheets, if necessary.) I put marks on each sheet of frisket so I can see how they go back together. Then, after the image-bearing frisket sheets are placed over my art board, I cut directly on the photocopied lines, guaranteeing that my art will end up looking just like my sketch.

In addition, when I am working with smaller, less detailed areas, I will run a sheet of frosted acetate through the copier to make a loose mask.

—Darrel Willman
Woonsocket, S.D.

LET YOUR FINGERS DO THE WAXING

When you use a hand waxer, the area around your waxing station can get pretty sticky. Try using an out-of-date phone book as your "base." When one page gets sticky, just turn to the next one for a clean surface.

—Ron Rockwell
Milford, N.J.

CATCH-ALL

I use a helpful product on my tilted drawing board that keeps things from sliding off while I am working. Called "Dycem" (Dycem Corp., 800-458-0060), it is a thin, tacky plastic that comes in a roll and can be cut to the desired size. This non-slip surface, ordinarily used by occupational therapists, can be cleaned with soap and water and will retain its original surface.

—Cynthia Pinell
Ruston, La.

FANTASTIC 'FANTASTIK'

After reading a "Shortcut" published in your March/April 1989 issue dealing with the use of Fantastik spray cleaner, I felt compelled to share yet another use for the product. Certain papers and films, such as Pantone colored papers and Letrafilm matte sheets, tend to make white out (such as Pro White) "crawl" or pull back and bead when it is applied with a brush or ruling pen. This annoying problem can be eliminated if the white out is slightly thinned with a few drops of Fantastik. The white out will have strong adhesion qualities, it remains opaque, and it will not crack or rub off.

When I use this method, I usually make up a small quantity in a cup or tray, so as not to taint an entire jar of paint.

—Andrea Grill
Brown Mills, N.J.

LASER PRINTED SHADING SHEETS

Make your own shading and tone sheets by using your Mac and the laser printer. Draw a sheet-sized rectangle on the screen and fill it with the pattern of your choice. Then, using the laser printer, run the file out on a sheet of Rayven adhesive-backed ReproFilm. Position the film over the area you need to shade, gently cut out that area, peel it off the carrier sheet and adhere it to the artboard. Save money by running out several patterns on the same sheet for smaller areas.

—Tootie Horn
Kalamazoo, Mich.

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—L. Schur
Ontario, Canada ■

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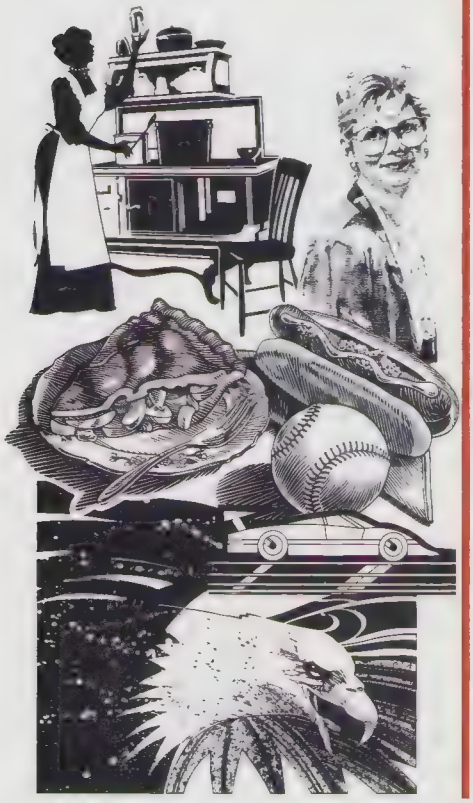

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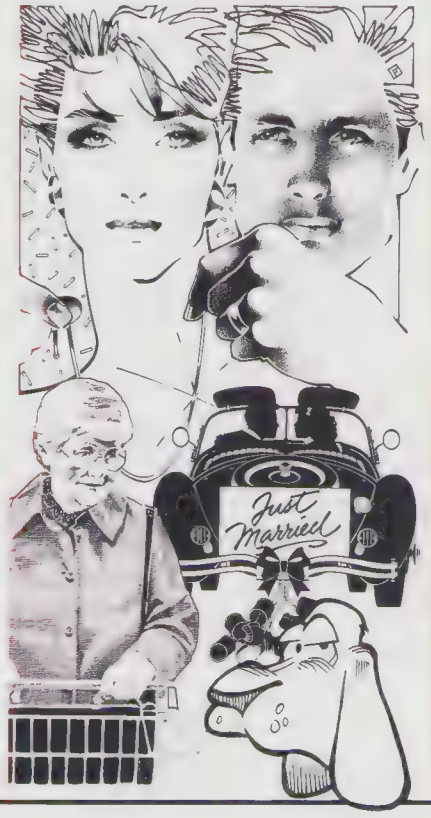

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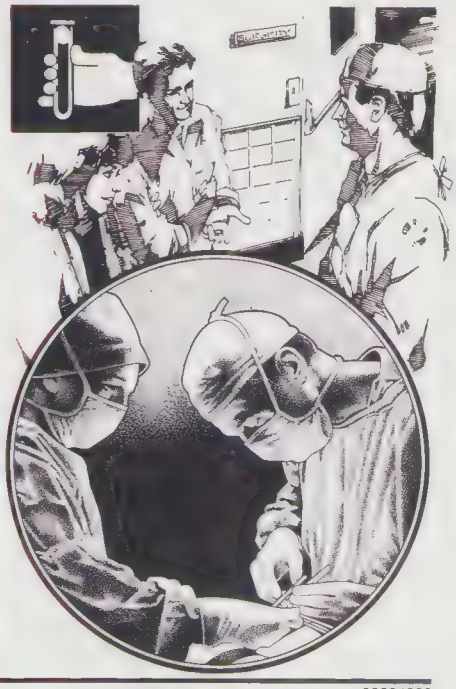

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Typographic Communications Today

Five years in the making, this long-awaited critical review of 20th century typographic design by *U&lc* Editor/ITC Vice Chairman, Edward M. Gottschall, fulfills all expectations.

This handsomely-produced, large format book traces the development of modern typography from the late 19th century's revolution in painting through today's electronic revolution. Along the way, it presents some 900 illustrations (more than half in color) from this century's best and most adventurous practitioners.

To gather much of the material, Gottschall traveled around the world interviewing outstanding typographers and designers from Russia, Czechoslovakia, Japan, the United Kingdom, France, Germany and many other countries. The focus of the interviews was not only about a specific designer's work, but about the "tides and waves" in graphic design. The information he could not gather personally, he received through phone interviews, questionnaires and samples. This material gives the book a global authenticity so needed in this era of cultural pluralism.

Gottschall's dual purpose is to develop in people new to communications a respect for type and to offer a "one-stop review" of some of the best typographic design work of the century. This book is "not a tutorial, not a how-to," he explains. It is a review which aims to "open eyes and minds to the potential power of typography."

In a glance, readers can see the work of the design pioneers and their successors who have brought vitality to the printed page using type as a vehicle. In presenting this continuum, readers see, for example, how the work of El Lissitsky influenced Wolfgang Weingart who in turn influenced a contemporary like April Greiman.

Also interesting is Gottschall's analysis of the impact of computers and laser technologies on typeface designs and typesetting. He discusses how this technology has increased the number of people—now in the millions—who set and compose type and the implications it will have upon the field. The author also reviews keyboarding on terminals, image scanning, electronic filing, networking and typeface design systems. If you don't know a raster from a vector, or if you need to know the difference between PostScript and Interpress, this is a good place to start.

Although the text is engaging, those who buy large format books like this primarily for visual reference will not be disappointed. The longest chapter—more than 100 pages of the 249-page text—consists primarily of images. Readers will find more exciting uses of type in this volume than a dozen other type books combined.

If you are at all interested in typography, it would be difficult to justify not having

PRINTING PAPER RESOURCES

Contact your local paper merchant or write the paper manufacturer for copies of the following inspirational, informational and technical references. Here are just a few of the many ways you can use them in your design and production planning:

For examples of die cutting, blind embossing, four-color process and match color printing, spot gloss and matte varnishing, duo- and tritones, metallic foil stamping, and accordion folding—"Imagination 26—White on White" is an exciting mix of printing and production techniques demonstrating Kromekote 2000's capabilities. The work of designers, illustrators and photographers such as Richard Manville, Zbigniew Bzdak, Guy Billout, Eric Ceputis, among many others, is featured. A healthy swatchbook is included. (Champion International Corp., One Champion Plaza, Stamford, CT 06921.)

For examples of unusual binding processes, embossing, scoring, line conversions, duotones, plus a variety of screens. Hoops is the subject of "Basketball on Howard Linen." A nearly complete line of Howard Linen colors and weights carry a number of out-of-the-ordinary printing and production techniques as well as the history and language of the sport. ($2, Howard Paper Mills, P.O. Box 982, Dayton, Ohio 45401.)

For examples of reproducing black-and-white photographs, including the use of duo- and tritones. Conveying the potential of black-and-white photography and its quality reproduction is the goal of "The Power of Black and White on Vintage." The photos in the 28-page booklet were shot by leading corporate photographer Cheryl Rossum. (Potlatch Corp., 207 Avenue C, Box 510, Cloquet, MN 55720.)

For examples of multi-level embossing, hand-tinted photographs, die-cutting, match color printing. "Famous Cardigans," parts one and two play up the feel and appearance of Cardigan paper by recalling the famous sweater's recent history. (Hopper Paper Company, P.O. Box 105237, Atlanta, GA 30348.)

For examples of three- and four-color printing, UV coating, spot varnish on cover stock. Fifteen annual reports which were printed on Inspiration, Celesta or Sterling are showcased along with complete credits and production notes. (Westvaco Direct Response, 800-235-3782.)

For examples of metallic printing, die cutting, clear thermography, engraving. "Precious Metallics" demonstrates the use of metallic inks on letterhead printed on Classic Linen. (Neenah Paper, Neenah, WI 54956.)

For examples of foil stamping, silk screening, embossing. A regal theme of kings, crowns and knights illustrates a variety of printing techniques on King James Cast Coat Colorworks. A swatchbook is included. (James River Corp., 145 James Way, Southhampton, PA 18966.

this book. Gottschall says in his conclusion that the typographic designer's first challenge will always be to understand the "message problem: just what is being said, to whom, by whom and with what objective. Only then can the typographic tone of voice be determined and the elements that comprise it be specified." This book gives ample evidence that designers of the world are meeting that challenge.

MIT Press
55 Hayward Street
Cambridge, MA 02142
249 pages; $75

Type and Image
The Language of Graphic Design

This is a book for designers who are curious about the "whys" of what they do. Author Philip B. Meggs, lauded for his excellent historical survey, "A History of Graphic Design," leaves the past behind and delves into language and symbol in an attempt to dissect the nature of graphic design and describe how it functions.

Meggs likens design to a visual communications gestalt, a German word with no exact translation, that means roughly "a configuration or structure with properties not derivable from the sum of its individual parts." In other words, it is a fusion of words and images that together form a new meaning.

How this new meaning is created is the essence of the book. Meggs tackles such weighty subjects as how symbols are employed in graphic design, the denotation and connotation of images, how space functions and the nature of graphic and typographic resonance.

Meggs defines graphic design as a problem-solving process, a struggle with the unknown. His model to describe the process includes five fundamental steps that may happen simultaneously or over an extended period of time. They include: problem definition, information gathering, idea finding, solution finding and implementation.

In what proves to be a delightful conclu-

(Continued on page 138)

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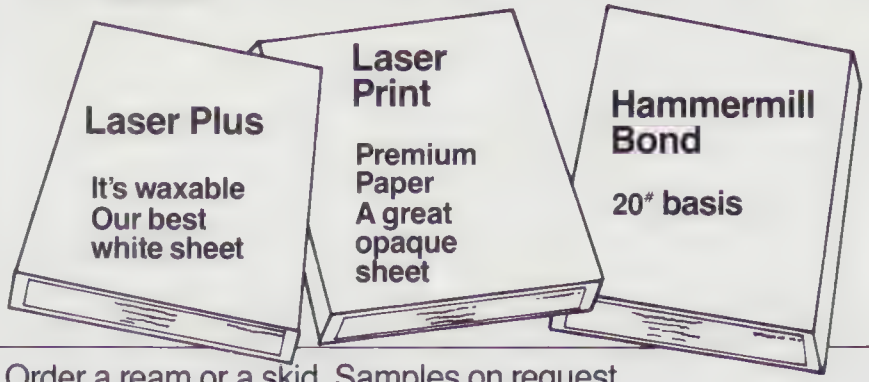

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(Continued from page 137)

sion to all this theory, Meggs shows in detail how three projects—a poster, an ad campaign and a book format design—follow this process. Complete with sketches, step-by-step descriptions and final solutions, these case histories—especially the Lance Hidy poster for Women's Action for Nuclear Disarmament (WAND)—take readers on the hide-and-seek path, and sometimes emotional roller coaster, involved in solving a design problem.

The numerous and always interesting visuals from some of the profession's best practitioners are not captioned, but rather are labeled in boldface type with chapter and sequence number. Within the text, the same boldface numbers appear. While it may at first appear to be disconcerting to readers who like to skim, they will soon find this is a well-thought-out plan, for text references always appear on the same page as the visuals. The format does not get in the way of the text, and information about the images is easily accessible.

Meggs must be complimented on his efforts to make design so understandable to colleagues and to the general public. His own passion for the subject and commitment to the field is certainly evident in his books. He senses an increasingly larger role for design and because of that a need to "comprehend its essence." As he writes in the epilogue of this book, "A rigorous attitude toward problem solving and the courage to reach out and risk failure are required from graphic designers *and* their clients if their efforts are to contribute to the advancement of human experience in our time."

Van Nostrand Reinhold
115 Fifth Avenue
New York, New York 10003
200 pages; $32.95

The Essential Image

Although full of brilliantly colored reproductions that author/photographer Lisl Dennis has taken on her travels to exotic ports of the world, the author makes it clear that this is not a travel book. Instead, she explores how to choose the best format, how to investigate and take con-

trol of subject material and how abstraction, angles and color affect composition.

Using a case-study approach, Dennis first shows an overall contextual shot—an unresolved image of a particular scene. Through a series of images with explanatory captions, she explains how she narrows her focus until she achieves the picture(s) she wants. This teaching device gives readers a good frame of reference for how she resolves photographic problems. Captions also list lens choices and angles at which the photographs were taken.

While Dennis does not ignore the rules, her purpose in this book is "to convey ideas and feelings that will help photographers, both amateurs and professionals, discover what fuels their photographic impulses and how they can imbue their work with greater graphic qualities."

AMPHOTO, Watson-Guptill Publications
1515 Broadway
New York, NY 10036
144 pages; $18.95

Breaking Into Advertising

This is a practical, straightforward guide for anyone contemplating entry into advertising, either as an art director or copywriter. As indicated in the subtitle, "Making Your Portfolio Work for You," most of the book concentrates on creating a portfolio that will land you that first job.

Author Ken Musto, an industry veteran, shares insightful tips and advice on the essential how-to's like preparing a work plan, putting together a good ad, writing the resume and showing the portfolio. He recommends including 15 print ads (no TV because it is harder to do and no one reads them, he says). Of the 15, include three campaigns (with three ads each); the remainder should be made up of ads on individual products, he recommends. Also important: Do not include all public service ads "because they are relatively easy to do advertising for, as compared with selling a product." Musto advises sticking with package goods (deodorants, toothpastes, dog foods) and service industries (airlines, car rentals and hotels), but warns beginners not to compete with the

(Continued on page 141)

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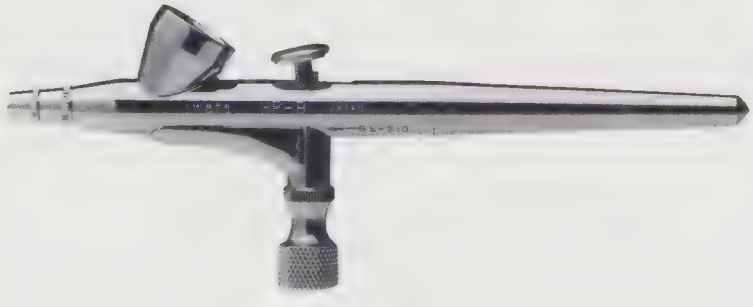

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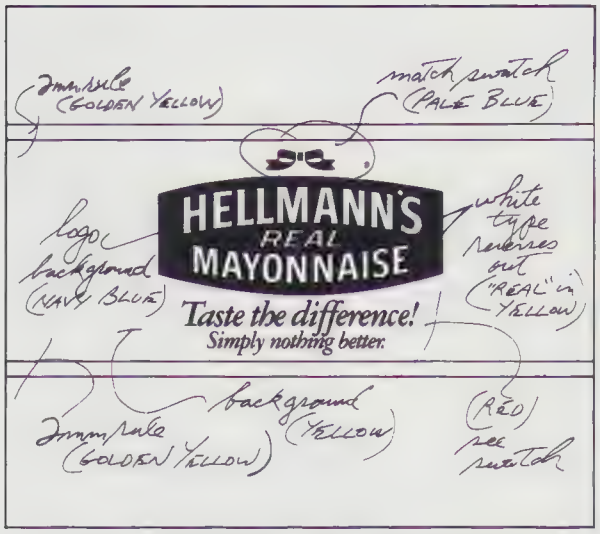

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(Continued from page 139)
classics (Volkswagen, Chivas Regal and so on.)

Particularly helpful is the chapter which devotes itself exclusively to recommendations from the pros—creative directors from some of the top agencies in the U.S. To help aspirants, the book contains a 16-page color insert of sample ads taken from beginning art directors' and copywriters' portfolios.

In his introduction to the book, Dale Cunningham, the head of one of New York's largest creative placement agencies, suggests that it should be mandatory reading for "all would-be copywriters and art directors."

Van Nostrand Reinhold
115 Fifth Avenue
New York, NY 10003
99 pages; $17.95

Trademarks and Symbols

For those who could not afford this massive volume in its hardback edition, originally published in 1984, "Trademarks and Symbols of the World" is now available in two separate paperbacks with the subtitles, "The Alphabet in Design," and "Symbolic Design Elements."

Editor Yasaburo Kuwayama has selected for this survey 1,720 black-and-white trademarks and symbols created between 1970 and 1983 by more than 1,200 artists from 38 countries. In the case of "Alphabet in Design," the trademarks and symbols are categorized by letter of the alphabet. For example, there are 159 entries for the letter "A." The "Design Elements" book is categorized under general terms such as people, flowers, machines, triangles, curves, musical notes and numerals. The index lists the name of the designer, country, application and color(s) used.

For those who were hesitant to buy it in hardcover, here is your chance to get the same information at a reduced price.

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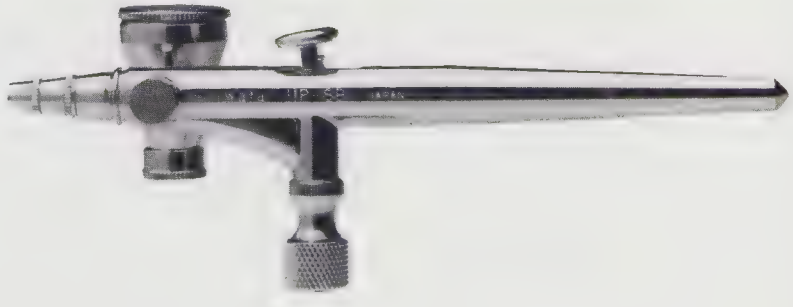

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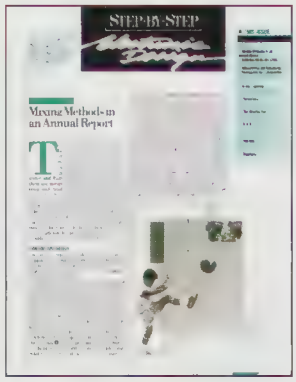

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CALENDAR

Upcoming seminars, trade shows, exhibitions and other events in visual communications.

JULY

Parsons Graphic Design in Japan July 10 through August 10. A month-long study program for students or industry professionals with Japan's foremost designers in the areas of advertising, publication design, symbol and logo design, typography and package design. Contact: Office of Special Programs, Parsons School of Design, 66 Fifth Ave., New York, NY 10011; (212) 741-8975.

Art Kane Photo Workshops Classes through September 1, Shelton College, Cape May, N.J. Three levels of instruction, foundation, applied and personal, will be offered by more than 70 instructors. Contact: Art Kane Photo Workshop, 111 Fifth Ave., New York, NY 10003; (212) 529-7093.

1989 Ozzie Awards for Publication Design Deadline for entries, July 15. Entries submitted for the overall categories of Best Cover, Best Overall Design, Best Special or Single Issue, Best Redesign, Best New Publication and Special Categories must have been published in the United States or Canada between July 1, 1988, and June 30, 1989. Contact: Ozzie Awards, 8340 Mission Road, Suite 106, Prairie Village, KS 66206.

TDC 35 Through September 14, ITC Center, New York City. The results from the 35th Annual Typographic Design Competition, sponsored by the Type Directors Club, will be shown. The show will later travel to Anchorage, Boston, Dallas, Miami, San Francisco, Toronto, Vancouver, France, Italy, Japan, Switzerland, the United Kingdom and West Germany. Contact: ITC Center, 2 Dag Hammarskjold Plaza, New York, NY 10017; (212) 371-0699.

Batman: The Art of the Dark Knight Through August 19, Cartoon Art Museum, San Francisco. The exhibition will feature more than 50 pieces of original comic book, strip or poster art. Contact: The Cartoon Art Museum, 665 Third St., San Francisco, CA 94107; (415) 546-3922.

Stanford Conference on Design July 27-29, Stanford University, Stanford, Calif.

Stanford Conference on Design July 27-29, Stanford University, Stanford, Calif. The three-day conference, concentrating on the design problem-solving process, will feature such speakers as industrial designer David Gresham, Japanese graphic designer Koichi Sato, architect Arthur Erickson, and former Porsche designer Tony Lapine, among others. Contact: Stanford Alumni Association, Bowman Alumni House, Stanford, CA 94305; (415) 723-2027.

Studio Magazine Awards 1989 Deadline for entries, July 29. Entries in the categories of graphic design, illustration, art direction, photography, printing, computer graphics or desktop publishing must have been completed between June 1, 1988, and July 29, 1989. Contact: Studio Magazine Awards, 124 Galaxy Blvd., Toronto, Ontario M9W 4Y6.

RIT Photography Workshops Various dates in July and August, Rochester Institute of Technology, Rochester, N.Y. Workshops on Color Techniques, Studio Light, The Business of Photography, Advertising and Illustration Photography, On-Location Photography, Studio and Portrait Photography will be offered. Contact RIT/T&E Seminar Registration, 50 W. Main St., Rochester, NY 14614; (716) 475-2758.

DGEF Seminars and Workshops Intensive two- to five-day courses beginning in July, including Typography in Design, Corporate Identity, Production Methods, Creative Advertising and Advanced Electronic Design and Illustration. Contact: Dynamic Graphics Educational Foundation, 6000 N. Forest Park Dr., Peoria, IL 61614; (309) 688-8866.

UCLA Computer Graphics Courses July through September, offered through the UCLA Extension, Los Angeles. A number of computer graphic courses, including desktop publishing, designing for computers, typography, and advanced rendering and storyboarding will be offered. Contact: UCLA Extension, P.O. Box 24901, Los Angeles, CA 90024-0901; (213) 206-8503.

AUGUST

SEGD National Conference August 3-6, Cranbrook Academy of Art, Bloomfield Hills, Mich. The theme for this year's conference will be "Design Collaboration: Vision, Framework, Design." Contact: Society of Environmental Graphic Designers, 47 Third St., Cambridge, MA 02141; (617) 577-8225.

AMI Annual Meeting August 12-16, The Fairmont Hotel, Dallas, Texas. Workshops on color rendering, contract and copyright problems, textbook publication (as well as other topics), a medical illustration show, and presentations on computer graphics, surgical illustration, writing for journals, contract negotiations and preparing artwork for high quality reproduction, will be offered. Contact: Association of Medical Illustrators, 2692 Huguenot Springs

Road, Midlothian, VA 23113; (804) 794-2908.

Mid Summer Creative Workshop August 13-18, Walt Disney World Village, Fla. Lectures, case histories, discussions and work sessions on publication design, conducted by Allan Haley and Greg Paul (both contributors to *Step-By-Step Graphics*) will be offered. Contact: Dynamic Graphics Educational Foundation, 6000 N. Forest Park Dr., Peoria, IL 61614; (309) 688-8866.

Careers in Computer Graphics August 13, Perloff Hall, UCLA Extension, Los Angeles. Experts in the fields of film/video, special effects, animation, typography and graphic design will discuss job opportunities in computer graphics. Contact: UCLA Extension, P.O. Box 24901, Los Angeles, CA 90024-0901; (213) 206-8503.

AMI Competition, Convention & Trade Show August 14-19, Loews Anatole Hotel, Dallas, Texas. Competitive screenings of more than 100 international multi-image shows, multivideo presentations and video productions will be shown. Educational seminars and workshops and a trade show will also be offered. Contact: Association for Multi-Image International, 8019 N. Himes Ave., Suite 401, Tampa, FL 33614; (813) 932-1692.

Design, Graphics and Conservation Seminar August 17-18, the Albuquerque Museum, Albuquerque, N.M. Intended for museum professionals working in design and graphics, the seminar will feature signage expert Ken Carbone of Carbone Smolan Associates and Monona Rossel, an accredited industrial hygienist and safety authority. Contact: DG&C, Albuquerque Museum, 2000 Mountain Road N.W., Albu-

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Illustration West 28 August 27 through September 28, Los Angeles Trade and Technical College, Los Angeles. Winning entries from the juried Illustration West 28 competition will be exhibited. Contact: Society of Illustrators of Los Angeles, 5000 Van Nuys Blvd., Suite 400, Sherman Oaks, CA 91403; (818) 784-0588.

Step-By-Step Cover Competition Deadline for entries, August 31. Submissions must address the theme "Expressive Typography," and may feature any form of type (machine-set or hand-rendered) or illustration. Winning design will appear on the cover of *Step-By-Step Graphics*' 1990 Annual, "Designer's Guide to Typography." See the announcement in this issue for more details. Contact: *Step-By-Step Graphics* Cover Competition, 6000 N. Forest Park Drive, Peoria, IL 61614.

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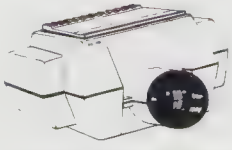

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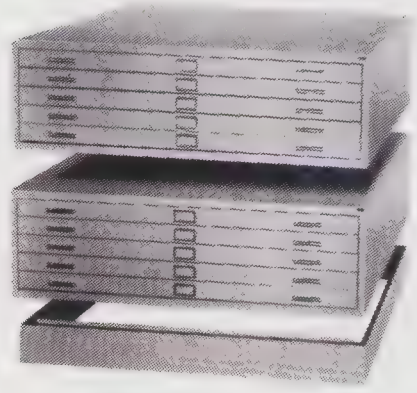

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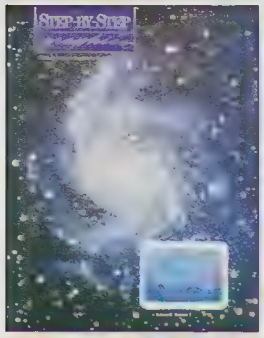

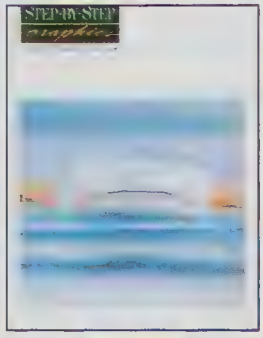

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VIEWPOINT

Josef Müller-Brockmann: The Swiss School of Graphic Design

This leading proponent of the Swiss school discusses his unique constructivist approach to graphics, his innovative music posters and design education.

Josef Müller-Brockmann's name has become synonymous with Swiss graphic design. This influential and now international school of design thinking seeks a universal graphic expression through an objective, constructivist approach to the applied arts. As did their predecessors of the Bauhaus movement, Müller-Brockmann and his colleagues stress that the visual impact of any design should be logical and self-explanatory. Rationality rather than the subjective feelings of the designer take precedence.

This objective approach is emphasized through photography and typography more than through illustration. Müller-Brockmann rejected illustration in graphic design because of its "subjectivity" and embraces photography as his primary form of pictorial representation. He also rejects all ornamental typefaces in favor of contemporary sans serif faces. Within a composition, type is arranged with visual elements in strict, mathematical relationships. Mixing different sans serif faces together or combining different antique faces is avoided, along with combining too many sizes of type. Asymmetry is preferred because it allows a more dynamic use of white space and, says Müller-Brockmann, "because it is an expression of our times."

The designer has a special affinity for modern art, particularly the constructivists, which is evident in a series of posters he created over two decades for the Tonhalle-Gesellschaft, Zurich's concert hall. Maintaining that the principles of music are closely aligned to the visual arts, he sought in these posters to create compositions which evoke the patterns and rhythms in music.

Born in Rapperswill, Switzerland, Müller-Brockmann practices design in Zurich, where he has maintained a studio since 1936. He has taught in the United States, Canada, Japan and Europe. He is also the author of six books on graphic design: "The Graphic Artist and his Design Problems," 1960; "History of Visual Communication," 1971; "History of Posters," 1971, "Grid Systems in Graphic Design," 1981, "Graphic Design in IBM," 1988 and "History of the Photo Poster," 1989.

Although Müller-Brockmann closed his studio three years ago—he had, for a time, 15 employees—today, some assistants work for him on a freelance basis. "I wanted to reduce administration work to be more creative again," explains the designer. "Now I am more free; instead of working 16 hours, I work 10 or 12 and do what I like to do myself. A former assistant and I are now working to apply the ideas we formulated three years ago in a design manual for the Swiss Railway. All of the signage within the Swiss Railway system will be changed according to the design manual."

In a recent interview in the U.S.—in conjunction with a traveling exhibition of his work organized by Pro Helvetia Arts Council of Switzerland, a government foundation, in collaboration with the Swiss Embassy in Washington—Müller-Brockmann re-emphasizes his objective view of graphics, laments the "emotional" approach taught in U.S. and European design schools and speaks eloquently on the creation of his concert posters.

SBS Has your thinking changed from the ideas you published in your first book, "The Graphic Artist and His Design Problems?"

Brockmann Not basically. I think my philosophy of design was already set at that time. It has only gotten wider with experience—wider in the sense that I have developed a broader knowledge about the importance of a very strict and logical approach to design. After I wrote that first book, I also founded a gallery for constructivist art. Since 1965 the gallery has exhibited the works of Joseph Albers, Max Bill and many other German, Swiss, Dutch, French, Italian, Finnish and Polish constructivist artists who work with geometric forms.

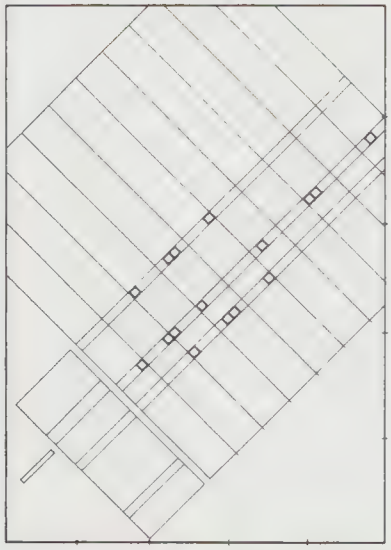
SBS You started out as an illustrator, but turned to graphic design. Can you explain why?

Brockmann I have always been, and to this day am, very self-critical. In my early years, I compared all my illustrations to drawings and paintings by Matisse, Léger or Picasso. After some years I discovered that there was a principle difference between a genius like these masters and myself. When I could formulate that difference, I stopped illustrating.

SBS What is that difference?

Brockmann In a given space, artists like Matisse, Picasso or Léger control all the proportions. In drawing, when you begin at one point and then add line by line, everything undergoes an immediate change. These masters are able to keep the changing proportions under control. But it is not just the form itself that is in wonderful proportion, also the negative space around the drawing is equally balanced. Compared with these masters, I have a

Figure 1 Poster for the Zurich Concert Hall, 1958, linoleum and letterpress.



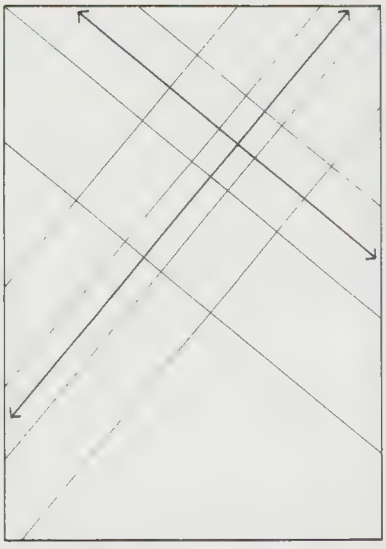


Figure 2 Public awareness poster, "Less Noise," 1960, offset.

mediocre talent. So I had to stop and begin anew with graphic design, photography and typography. I am very thankful that I had and still have this very strong sense of self-criticism that enabled me to come to this understanding.

SBS What interested you in geometric forms, in constructivism, above all other art forms?

Brockmann All geometric forms have character. Take a rectangular form; it has a different character when compared to a square or a circle. I find these kinds of spatial problems very fascinating.

The constructivists are able to compose a painting without any unneeded forms or elements. If you eliminate something, the entire composition is damaged or destroyed. In a painting by Lissitzky or Albers, every element is a part of the whole composition. And it is measured—you can see the proportions and analyze the painting. I try to do the same thing in all of my design work.

SBS You use strict grids to organize the forms and type in your compositions. Is there a way to compose intuitively without a strict grid?

Brockmann Georges Braque once said that he loved the rules because they give order to creativity. Of course, if you are a genius, you don't need the rules because you are full of order—you have the secret of order in yourself. Those of us with normal talent have to conserve the order and be aware of its importance. I saw this kind of order in all of the best paintings. Works by Michelangelo, Bellini, Giotto, Léger or Picasso all have a very strict organization of forms and colors. Those of us who are not geniuses must find that order. Using a grid makes it easier to do a good job. It is a protection against mistakes.

SBS You favor photography for pictorial representation because it is more rational. Can you explain that?

Brockmann Photography is more informative. In illustration, you can manipulate the drawing, you can manipulate the form. Photography is able to represent reality authentically. I may use stylized drawing, such as pictograms or diagrams, but never realistic illustration.

SBS In the case of your concert posters for the Zurich Tonhalle-Gesellschaft, do the ideas spring from the subject material—in this case, the music?

Brockmann The ideas spring from the rules in music. All good music has strong composition, development, reversal and end. Good music is never heavy; it has lightness, elegance, transparency, strong form and poetry.

In music, I want to hear what takes place; in design, I want to see what takes place. In the posters, I want to have compositions that are transparent and that breathe. I want viewers to see through and analyze the lines. Like in music, everything must have balance, good clear contrast, breathing space and pause. The whole has to appear elegant and poetic. And every element in the poster must be necessary for its form. If one line or color is missing, the entire composition would be weak. With typography, there are different rhythms—short and long rhythms and so on. No matter what line you look at, it is somehow related to the whole. Nothing is out of rhythm.

SBS Why, for example, did you choose a circular form in a black-and-white poster for a Beethoven concert?

Brockmann Beethoven was a deep, close, thoughtful, heavy composer. Through music, he wanted to leave the heaviness of this earth to reach a higher sphere of clarity, of transparency, of happiness. But, of course, he is not an angel or spirit, so he always fell back to try again—like Icarus in the Greek myths. So this music gave me a sensation of rising up and leaving this existence to reach an atmosphere of lightness and timeless beauty. I thought these circular forms did that.

SBS Your posters, then, are not illustrations in the sense of listening to the music and trying to devise a form for it.

Brockmann No. I want to *translate* an element of the music. Not a particular element, but its rhythm, dynamics or color. All music gives us the impression of color.

SBS How does color function in your other work?

Brockmann It is related to the job, but it acts more as a symbol. If I make an advertisement in two, three or four colors, I might, for example, use blue as a symbol for iron, or I might use yellow for a traffic signal or red for a product like a technical tool. On the other hand, in the music posters I may have used yellow and violet because they are complementary colors. They activate each other.

SBS Could you explain how your work developed?

Brockmann When I was 18, I taught myself to experiment—to do everything I was able to do, release my fantasies, and not build barriers. And then when I was 30, I tried to find out slowly where I was, what was my way. I tried to integrate this and make it larger until I was 35. From 35 to 40, I tried to make it as large and deep as possible because after 40 no new things appear. I have studied the modern art masters, the old masters and the masters of music and most of them created their most important work before they were 40. After 40, they created wonderful variations. In my own work, I created the music posters—something that did not happen in this manner in the world before.

SBS What do you feel you have contributed to design as an educator?

Brockmann For me, teaching was and is still limited to short periods of time. I ended my formal teaching in 1960. I taught for four years at the Applied Art School of Zürich, but gave it up. When I was asked to be director of the school, I demanded a number of stipulations, for instance, that all instructors stop teaching after four or five years so they could refresh their creativity by working again as freelance designers. You can't teach more than four or five years without being empty. It is quite impossible to promote your own thinking and experience without adding to it. And you do that by solving problems

Figure 3 Poster for the Zurich Concert Hall, 1970, silkscreen.

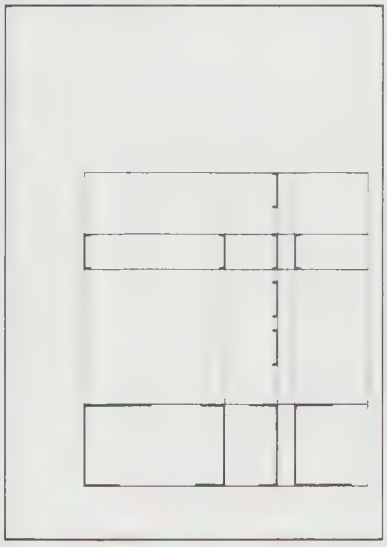


Figure 4 Public awareness poster, "Protect the Child," 1953, offset.

for clients in competition with other designers so you can prove your authority. I also recommended closing some of the classes. For example, I felt the interior design class was unnecessary because good architects like Mies van der Rohe and Walter Gropius do their own interior design. I also instituted a system of both practical and theoretical education for design students that is still used today.

SBS What is your perception of design worldwide? For example, do you see any difference between what is being produced in the U.S. and in Europe?

Brockmann I think design is the same in Europe and the U.S. Most graphic designers are working emotionally, not rationally. This is a fact, and it is the same worldwide. It is because education in the schools is based on emotion. As in the U.S., many schools in Europe have teachers who want to be artists first. I say a graphic designer is not an artist.

I am not an artist, but I want to be a useful designer. If I was an artist, I would be very happy, but I do not have the talent. I believe you can learn graphic design, but you must be born an artist—like Picasso, Matisse and Léger. You can learn to think rationally and be a useful, effective graphic designer. Industry needs intellectually-trained and logically-thinking designers for their needs. No client is interested in your feelings and emotions about art because they want a designer who is cooperative and who is willing to understand their problems. I teach my students to think with the client, to help him solve his problems. The client wants to sell, and you have to help him. To do that, you do not have to present yourself as an artist. He is interested in your capacity of listening to him and understanding his needs.

In the universities, I see graphic designers who react emotionally. It is not a question of quality. They like to produce artwork; they want to be recognized first as artistic designers. I tell students to be effective as graphic designers, they must be interested in the problems of a particular client.

SBS Is there room for solving clients' problems with a more expressionistic or emotionally-based graphic design?

Brockmann There are very few occasions in which designers are asked to solve a problem emotionally. Mostly, clients are interested in reaching a very clear layout for an advertisement or corporate identity. You can't do an effective corporate identity program emotionally. There has to be a distance. It has to be based on a clear, regular, productive system.

You have to teach young people to use their brains. Every child has emotions and every child can make a nice drawing, but not every child can think intellectually, logically and systematically. Graphic designers should be trained in these skills.

SBS How would you define the difference between fine art and graphic art?

Brockmann Fine art is free art. Graphic design is a profession that serves industry and cultural, economic and political institutions who transmit their ideas and information to an unknown, anonymous audience to inform them about their products, ideas and philosophy as clearly as possible. Of course, a graphic design solution is based on a systematic grid or intellectual ordering, but it should be aesthetic, too, because it is also information.

SBS Is there a post-modern movement in graphic design?

Brockmann At this time we are full of controversial directions—in architecture, in painting and design. But slowly the situation will become clearer. For 20 years we have been living in a very confused time. The World War stopped the development of Bauhaus thinking and the future-oriented designs. This was certainly a reaction against the moderns.

SBS Do you think the world will ever come to a balance between the past and what was accomplished with the modern movement?

Brockmann Post-modern design is a reaction against functional modern design. But beyond post-modernism, I think a stronger, more logical approach to design, painting and architecture will follow.

SBS But is it possible to be truly objective in graphic design?

Brockmann The objectives of graphic design are different according to the task. Signage or corporate identity programs demand 100 percent objectivity. In contrast, the poster design contains both complements, objectivity and emotion.

SBS In selecting graphic design as your profession, what did you hope to accomplish?

Brockmann I wanted to be a useful, productive member of our society—to do nothing against the interest of that society. Thirty years ago when I read that cigarettes could cause cancer, I went to my cigarette clients and said I could no longer work for them because of the dangers of the product. I also gave up my clients that manufactured aperitifs because I personally do not want to convince people that drinking alcohol is prestigious. In the same vein, I did not work for any military interests or companies which produced poorly manufactured products.

I want to use my graphic design as an instrument for information—to correctly inform the public about what the product is, and what it is able to do. It is my philosophy that a product should not be inflated. The graphic designer must make it appear to readers as close as possible to reality. For example, I would never accept a text for an ad or product that would make it appear to have a higher quality than it really does. The design must be informative, but in a truthful way. Above all, I want the reader to trust me. ■

—John Fennell

Editor's Note: The exhibition of Müller-Brockmann's work began in Charlotte, N.C., and has made stops in Westchester (N.Y.), Los Angeles, San Diego, Tuscon, Flagstaff and is on view at the STA Gallery, 233 East Ontario, Chicago, Illinois (312-787-2018), from June 15 to Sept. 15, 1989.

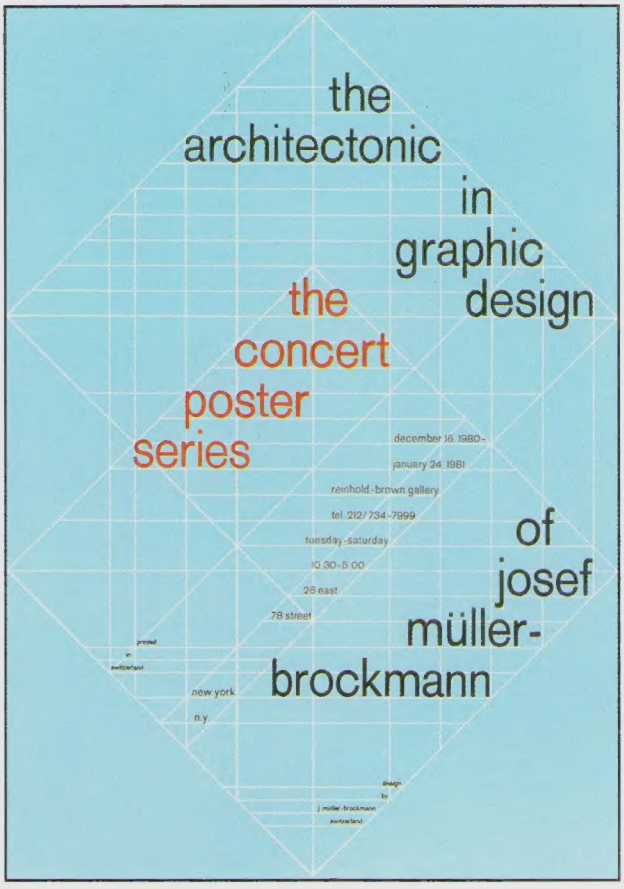
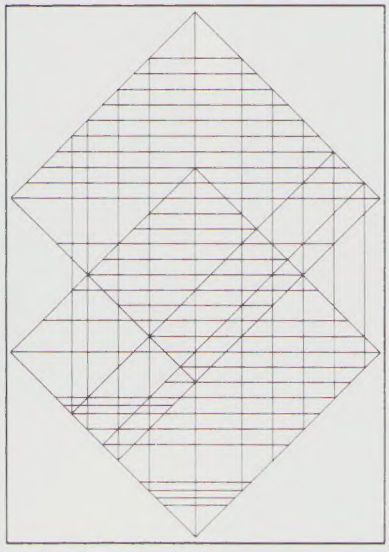


Figure 5 Poster for an exhibition of the concert poster series, 1981, silkscreen.



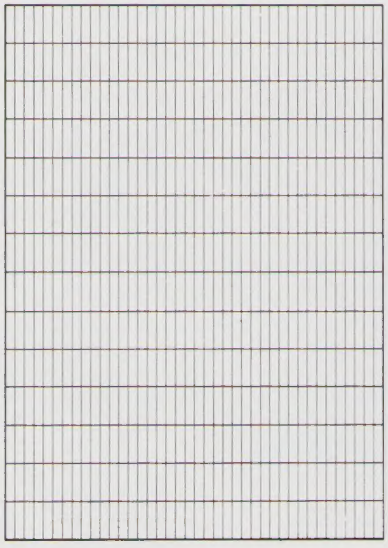
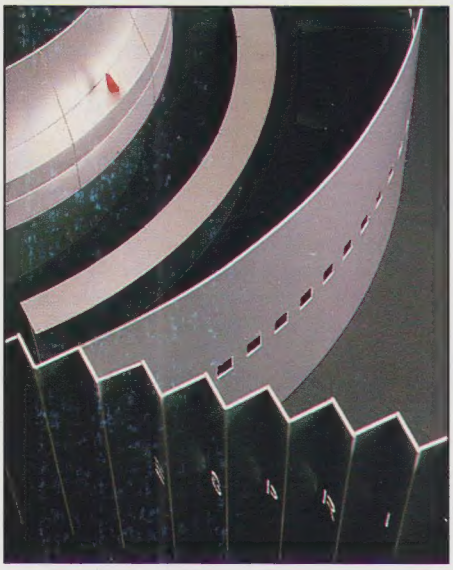


Figure 6 Poster for the Zurich Concert Hall, 1969, linoleum and letterpress.

LOOKING AHEAD

A sampling of upcoming articles:

ESPRIT SHOE ROOM



San Francisco designer Michael Vanderbyl orchestrates a theatrical environment for an Esprit shoe showroom by combining inventive form with simple, inexpensive materials.

SPECIAL LETTERPRESS INSERT

By featuring an actual letterpress insert designed by artist Tom Bonauro, this comprehensive demonstration article explores how graphic designers can use traditional letterpress and hot metal type to their advantage.

ANITA KUNZ

Canadian illustrator Anita Kunz uses watercolor to render a satirical portrait of The Monkees for *Rolling Stone's*, "History of Rock and Roll."

FOUR-STOP PHOTOGRAPHY

An innovative—yet controversial—new method for shooting photographs so that they more accurately accommodate the limitations of the print reproduction process.

CREATIVE COLLAGING

Artist Karen Watson uses gouache, the copier, handmade, imported and marbleized papers to create a lush cover landscape for a corporate client.

THE CAMERA AS DESIGN TOOL

How Boston-based designer Michael Weymouth creates the photos and design format for an annual report.

JAZZY I.D.

New York artist Mike Quon designs an identity program for a jazz-oriented radio station that includes disc jockey portraits created with stats, spirited linework and colored film.

ALSO TO COME

—Whittle's Wall Media: How a typical issue of a magazine-in-wall-poster-format gets produced.
—Explore the techniques of master Herb Lubalin.
—How Alphagrafix cracked the Russian market.

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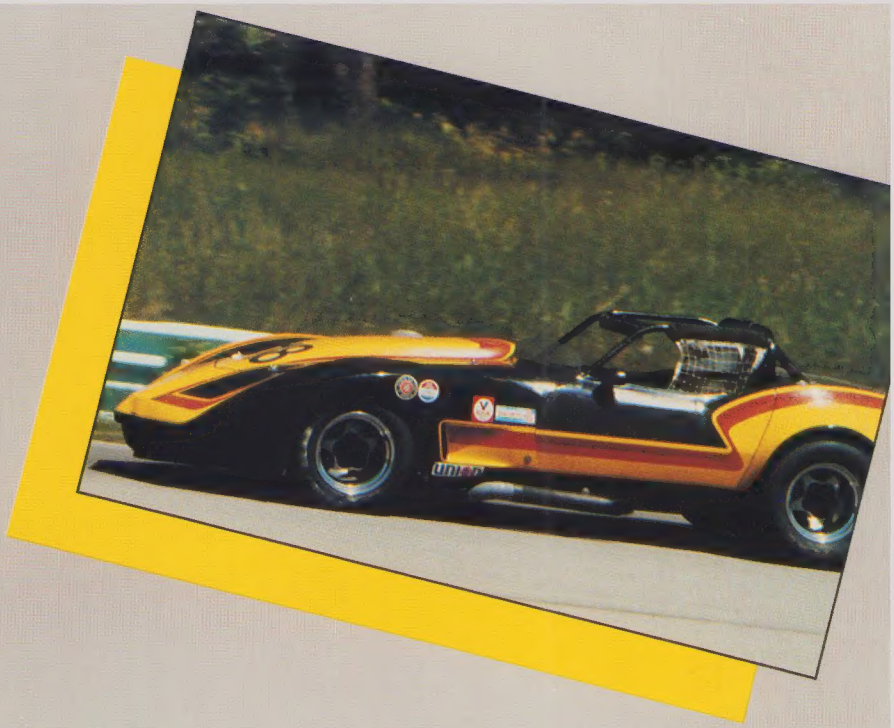

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